MICHIGAN FARMER.

Devoted to Agriculture, Horticulture and Science.

Organ of the State Agricultural Society—the only Agricultural Journal in Michigan.

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THE MICHIGAN FARMER,

A MONTHLY HOME JOURNAL

Devoted to Agriculture, Horticulture, Stock-Raising Mechanics, and all things pertaining to the Farming Interests of Michigan, and Agriculture in general. $1 per year.

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THE ANNUAL WINTER MEETING OF THE STATE AGRICULTURAL SOCIETY.

The late meeting of the Executive Committee of the State Agricultural Society held at Ypsilanti, was the inauguration of an attempt to promote a general movement amongst the farmers of the State, which should lead to more definite attempts at improvement than have yet been made. We have not room to speak of the meeting, in this number in the detailed manner in which we desire, but the meeting was a most splendid success, and the President, B. Follett, Esq., to whose liberality and foresight much of the success of this experiment is owing, is entitled to the honor of having engrafted this new feature on the action of the Society. The several lectures and discussions, were listened to with marked attention by leading farmers from Branch, Lenawee, Wayne, Oakland and other counties, and were on topics of the highest interest to the general agriculture of the State. We shall notice them more at length in our next number.

The Agricultural College, and the State Board of Agriculture.

This Institution opens on the last Wednesday of the present month, and deserves attention as one that now presents facilities and opportunities to young men that are of great value. Our room this month is so limited that we cannot do more than call attention to it, and to say that catalogues containing full information will be sent to any applicant who may address the President at Lansing.

The newspapers advise us that the State Board of Agriculture who have the control of the Agricultural College, have tendered to SANFORD HOWARD, Esq., of Boston, Mass., (New England,) the editor of the Boston *Cultivator*, an invitation to accept the position of Secretary. Mr. Howard we have known intimately for the last twenty-five years, and should he accept the invitation to do us out west the honor to migrate amongst us he will undoubtedly make a good officer and a useful member of the institution, and be of much service to the agricultural college, that is now under the charge of a president of purely literary tastes and acquirements.

MICHIGAN STATE AGRICULTURAL SOCIETY.

ANNUAL MEETING OF THE EXECUTIVE COMMITTEE, AT YPSILANTI, FEB. 9th, 1864.

In pursuance of notice the annual meeting of the Executive Committee of the Michigan State Agricultural Society was held at Ypsilanti, at Follett Hall, on the 9th of February 1864

The President, B. Follett, Esq., called the committee to order, and on calling the roll the following members answered to their names: A. S. Berry, G. W. Beckwith, E. S. Moore, W. J. Baxter, John Allen, A. S. Welch, Geo. W. Phillips, M. Miles and Secretary.

The President then made the annual address.

The Secretary submitted his annual report as follows:

[This address we shall publish in our next.]

On motion of Mr. Baxter, the address of the president was referred to a special committee of three for reference of the subjects therein contained.

The report of the Secretary was referred to the committee on Finance.

The President announced the following standing committees:

Business Committee—G. W. Beckwith, chairman, W. J. Baxter, J. A. Walter, and Secretary.

Finance—A. S. Welch, E. S. Moore, and K. C. Barker.

Trial of Implements—J. Allen, C. W. Green, and G. W. Phillips.

Rules and Regulations—M. Miles, A. S. Berry, and A. G. Bates.

Premium List—W. J. Baxter, C. W. Green, A. S. Welch, J. Allen, and G. W. Phillips.

Mr. Baxter from the special committee on the address of the president made the following report:

The special committee to which was referred the address of the president to apportion the subjects referred to therein, to appropriate committees, respectfully recommend.

1st. That so much of said address as refers to the finances of the Society be referred to the Finance committee.

2d. That so much as refers to the next annual Fair and the place at which it may be held, be referred to the committee of the whole.

3d. That so much as refers to so changing the character of the winter meetings as shall give them a wider scope, and add to their interest and usefulness, be referred to a special committee of three.

4th. That so much as refers to securing some fixed place of meeting and rooms for the society, and collecting a museum, seeds and other agricultural and horticultural specimens, be referred to a special committee of three.

5th. That so much as refers to the improvement of grains, stock, implements, fruits, &c., be referred to the committee of the whole.

6th. That so much as refers to the State Agricultural College and the connections of the State Agricultural Society therewith, be referred to a special committee of three.

7th. That so much as refers to the rearrangement and classification of the premium list, be referred to the committee on rules and regulations.

8th. That so much as refers to the agricultural department of the United States, and a proposed correspondence with them, be referred to a special committee of three.

9th. That so much as refers to an increase in the salary of the Secretary, be referred to the committee on Finance.

The report was adopted.

On motion, ordered that the public meetings for lectures and discussions as published, take place in the afternoon of each day at half past two o'clock, and in the evening at half past seven o'clock.

The committee adjourned till half past two o'clock, P. M.

TUESDAY afternoon. The committee met at half past two o'clock, and the President having called the meeting to order, announced that a lecture on the subject "How can the State Agricultural Society best accomplish the objects for which it was established, by its Exhibitions?" would now be delivered by R. F. Johnstone, Secretary of the Society.

After the lecture discussions were held till the hour of adjournment.

Mr. Baxter offered the following resolution which was adopted.

Resolved, That the State Agricultural Society by its Secretary, be requested to correspond with the several county agricultural societies in this State, and ascertain the relative amount of white and red wheat raised, the cause of abandoning the culture of white wheat, and the relative productiveness of each variety.

On motion adjourned till half past seven o'clock, P. M.

TUESDAY evening. Committee met at half past seven o'clock, when the President announced that a lecture on Fruit and Fruit-growing would be delivered by J. C. Holmes, Esq., the first Secretary of the State Society.

Mr. Holmes delivered a very interesting lecture on Fruit culture, and the progress it has made in Michigan.

On the conclusion of this lecture the President announced that Mr. T. T. Lyon, of Plymouth, would deliver a lecture on the same subject.

Mr. Lyon then delivered a very interesting lecture on Fruit-growing, and the lecture was followed by a discussion on the planting of trees

the preparation of orchards, and other matters of much interest.

Mr. Welch moved that a committee of five be appointed to prepare a list of pears suitable for cultivation in Mich gan by amateurs, and also a list suitable for market purposes.

Mr. Baxter moved that the subjects referred to in the lectures just delivered, be referred to the executive committee for such action as might be deemed appropriate. Adopted.

On motion the committee adjourned till nine o'clock, to morrow morning.

WEDNESDAY, 9 o'clock, A. M. The committee met, the President in the chair.

Present—Mr. Berry, Mr. Beckwith, Mr. Walter, Mr. Moore, Mr. Baxter, Mr. Allen, Mr. C. W. Greene, Mr. A. S. Welch, Mr. Geo. W. Phillips, Mr. Miles, and Mr. A. G. Bates.

Mr. Miles from the committee on Rules and Regulations, and the rearrangement of the premium list made a report which was accepted, and after amendment adopted.

The President announced the special committees to which subjects in the annual address had been referred, to be as follows.

On winter meeting. Messrs. Welch, Berry and Secretary.

On subject of establishing a fixed place for the meeting, and for the collection of a museum and library for the society. Messrs. Baxter, Walter and Greene.

On the agricultural department of the United States. Messrs. Moore, Allen and Miles.

Mr. Walter presented the account of Messrs. Kellogg & Co. for lumber used at the late State fair. Referred to committee on finance.

Mr. Walter presented account of J. Perrin for straw used at the late State fair. Referred to committee on finance.

Mr. Berry presented account of J. J. Newall for services rendered in 1859. Referred to committee on finance.

A letter was received and read from J. B. Crippin, Esq., advising of the severe sickness of the Treasurer, H. C. Lewis, Esq., of Coldwater, and asking that his absence might be excused.

A letter was received and read from S. S. Bailey, Esq., of Grand Rapids, advising the President of his sickness, and proposing the following resolution for consideration:

Resolved. That in view of the objects to be secured by the State Agricultural Society, and which under proper management and sufficient support will be secured, it is the duty of the State to make said society its own, and have such a voice in the general direction and control of the society as will warrant the State in taking under control of its financial affairs.

The resolution was laid on the table.

Mr. Baxter, from the committee on premium list, reported as follows:

The committee respectfully recommend.

1st. That the premiums in Division A, cattle, be so changed as to unite the first five classes into one, to show as Class "No. 1, Thoroughbred Cattle." That Nos. 5 and 6, be made "No. 2, Herds of Thoroughbred Cattle," and that the premiums be increased.

2nd. That No. 7 stand as at present, with the addition that it be for "fat cattle raised in Michigan," and be No. 3, and that a new class be made as No. 4, offering premiums to same amount for fat cattle, without reference to locality. Cattle competing in No. 3, being permitted to compete in No. 4.

3d. That in Division B, Horses, the Thoroughbred Class be made the first in that division, and that the classes of part Thoroughbreds and Horses of all work be united into a single class, and that the remaining classes in the division remain as they are.

4th. That the several Classes of Merino Sheep be made one Class, under the title of "Fine Wooled Sheep;" That in the Class of Thoroughbred Sheep, the exhibitor be requested to exhibit with the sheep the fleece clipped preceding spring, and that the list of premiums on wool be stricken out.

5th. That in Division D, the premiums be increased, the list remaining arranged as at present.

6th. That the premiums be increased in Division E, F and G, and that in other respects they remain as reported.

7th. That in the Class for Sewing Machines, the premiums heretofore offered be stricken out, and that in place of premiums, the society furnish ample accommodations and facilities to exhibitors, so that the merits of the various machines may be determined upon by those in attendance, without the intervention of a viewing committee.

8th. That the premiums in the division of shrubs and flowers be considerably increased.

And the committee further reccommend, that with these general recommendations, the premium list be considered in debate in the committee of the whole.

On motion, the report was accepted, and referred to the committee of the whole.

Mr. More offered the following resolution which was adopted.

Resolved, That whether in debate, or in the committee of the whole, discussion shall be limited, so that members shall not speak more than twice, on any one motion or resolution, nor longer at any one time than five minutes.

Mr. Welsh, from the committee on finance, reported in favor of the payment of the accounts of Messrs. Kellog & Co., and J. Perrin, Kalamazoo, and the business committee were directed to pay the same.

The committee then adjourned till 2 1-2 o'cloc

WEDNESDAY afternoon. The committee met. The President in the chair.

Mr. Allen, offered the following resolution.

Whereas, We consider the toleration of side shows and establishments for the vending of intoxicating drinks, within the enclosure at the society's annual exhibition, to be not only a bad taste, but a positive discredit to the society:

Therefore Resolved, That the business committee be instructed to make arrangements for their entire exclusion from such grounds as may come under the control of the society for the purpose of holding a fair during the ensuing year.

Mr. Green moved to amend the resolution by striking out the words "side shows," as he could not consider it discreditable to the society, to admit establishments which the village or city corporation would permit outside of the enclosure, if we did not allow them inside. Mr. Allen accepted the amendment.

Mr. Green, said he would willingly sustain the resolution, were it necessary, or did it not imply that the society had heretofore permitted the sale of intoxicating drinks on their grounds. It was a standing rule of the society not to permit such articles to be vended in any way on the grounds, and therefore, as no action was required, he moved the resolution be laid on the table.

The resolution was laid on the table.

Mr. Green offered the following resolution.

Resolved, That the committee on Implements and their trial, be authorized to hold a trial of haying and harvesting machines during the season, appropriate for such a trial, and that such trial be held under the auspices of the State Agricultural Society, and that the chairman of the business committee be associated with the committee to hold the said proposed trial.

Referred to the committee on trials of implements with power to report a plan for such a trial.

The President announced that the subject for discussion this afternoon was, "Sorghum and Sugar Manufacture," and that the President of the late convention of Sugar Growers, Mr. William Taft, of Plymouth, would open the discussion.

Mr. Taft related his experience and the result of his observation on the growth of the Sorghum and the manufacture of merchantable syrup.

Mr. J. Richard, of Tecumseh, exhibited a number of specimens, and gave a detailed statement of the certain profit of the culture and manufacture of these articles.

A number of specimens of beautiful sugar were exhibited, and also some samples of very choice syrup, remarkable for its strength and freedom from all vegetable taste.

Mr. Baxter offered the following resolution, which was adopted.

Resolved, That the State society be requested to offer an increased premium, for the best specimens of Sorghum Syrups and Sugars, accompanied with full written statements of the varieties of cane, from which the same was produced, and the process of manufacture.

Resolved, That the State Society be requested to use their influence to secure action on the part of the State of Michigan, to encourage the manufacture of the Sorghum Syrups and Sugars.

The committee adjourned till 7 1-2 o'clock P. M.

WEDNESDAY Evening. The committee met. The President in the chair.

The President announced, that the subject for discussion this evening, was the treatment of muck and composts, as exhibited by the experiments made by the Professor of Chemistry, at the Agricultural College, and he introduced Prof. Kedzie, who delivered a most interesting lecture on the subject.

Mr. Abbot, President of the Agricultural College, followed with a brief address on the system of instruction adopted at the College.

The address was followed by discussion, when the committee adjourned till Thursday morning at 9 o'clock.

THURSDAY morning. The committee met, the President in the chair.

Present—Mr. Beckwith, Mr. Berry, Mr. Walter, Mr. Moore, Mr. Baxter, Mr. Allen, Mr. Green, Mr. Welsh, Mr. Phillips, Mr. Miles, Mr. Bates, and Mr. S. S. Bailey, of Grand Rapids.

A letter was received and read from the President of the Agricultural and Horticultural Society of Lenawee County. Referred to a special committee, consisting of Mr. Berry, Mr. Moore, and Mr. Bailey.

A letter was received and read from M. H. Brooks, Secretary of the Ypsilanti Floral and Horticultural Society, transmitting resolutions of that Society. Referred to the special committee on communications.

A letter from E. N. Wilcox, Esq., of Detroit, referring to subjects worthy the attention of the society, was read and referred to the special committee on communications.

Mr. Bailey, submitted a communication containing propositions and regulations, relative to the annual exhibition, which was referred to the special committee on communications.

On motion of Mr. Baxter, *Resolved*, That the propriety and expediency of appointing delegates to the Pomological Convention, and other conventions of societies of a like character with our own, be referred to the President with power to appoint.

Mr. Greene from the committee on trials of Implements, reported as follows:

Your committee respectfully report, that in their opinion a thorough and impartial trial of certain farm machines, viz: Mowers and Reapers, and other harvesting implements, is of the utmost importance to the agricultural interest of Michigan, and therefore, would recommend that such a trial be held, and that the following premiums be offered. For the best combined mower and reaper, fifty dollars and silver medal; for the best reaper, silver medal and forty dollars; for the best mower, silver medal and forty dollars; for the best self raking attachment, silver medal and ten dollars; for the best self binder, or binding attachment, silver medal and ten dollars. Each exhibitor being required to pay a fee of five dollars, for each entry.

The committee further recommend that the President and business committee be associated with the committee on trials of Implements.

The report was accepted and referred to the committee of the whole on the premium list.

Mr. Moore from the special committee on the subject of the Department of Agriculture of the United States, reported as follows:

Your committee reports, that they have had under consideration so much of the address of the President, as relates to the Department of Agriculture, at Washington, and that we consider the subject one of great importance, and believe that this society should be brought more immediately into association with that department, so that its interests as well as our own might be more thoroughly promoted, and we therefore recomend for your considerations the following resolution:

Resolved, That the Senators and Representatives of Michigan now in Congress, be respectfully requested by the President of this Society to sustain the Department of Agriculture in such manner as will most promote its usefulness, and to favor such appropriations for its support as may tend to give it those facilities, which are requisite to make it serviceable in its several divisions, to the Agricultural interests of the United States.

Resolved, That the Secretary be directed to communicate with the department at Washington, and to forward to it the names of this Executive committee, so that when necessary the Commissioner may correspond directly with them for the distribution of seeds, documents, or such other matter as may be proper and necessary.

Report and resolutions accepted and adopted.

The committee then went into committee of the whole on the premium list, and after making some progress, the committee reported and asked leave to sit again. Granted.

Committee adjourned till 2 o'clock, P. M.

THURSDAY afternoon. The committee met, President in the chair. Committtee went into the committee of the whole on the premium list.—The committee rose and reported progress.

The President then announced that the subject for lecture and discussion during the afternoon and evening would be "Stock raising, and the comparative value of breeds of cattle."

Professor Miles then delivered a lecture upon live stock and its value, giving much attention to the statistics of the subject.

It was followed by Sanford Howard, Esq., of the Boston *Cultivator*, whose lecture referred principally to stock raising and the principles involved in it.

On motion of Mr. Starkweather.

Resolved, That the thanks of the society be tendered to Professor Miles and to Sanford Howard, Esq., for the interesting lecture which they have delivered on live stock.

THURSDAY evening. The President in the chair.

Mr. Miles moved the adoption of the following rules relative to the exhibition of cattle.

The viewing committee on animals of the several classes exhibited as breeding stock are instructed to exclude from competition overfed fat animals, or such as are obviously unfitted in any manner for breeding purposes.

In order to compete for premiums in class 11, "fat cattle fed in Michigan," exhibitors must furnish written statements properly verified, that the animals offered were fed in the State, with particular statements of the manner of feeding, kind, quality and value of food consumed, and all the expenses connected with feeding.

The Secretary moved that the first rule be amended so as to read as follows.

The viewing committees on cattle exhibited as breeding stock, are directed to require that all cows or heifers over three years old shall have borne a calf during the year, or shall be in calf when shown.

The rule as amended was adopted.

The second rule was read, and the words "that the animals offered were fed in the State," were changed to read, "that the animals offered were "bred and fed in this State," and the rule was adopted.

The committee then went into committee of the whole on the premium list, and after some time spent thereon, the committee rose, and Mr. Baxter reported the premium list back with sundry changes, additions and amendments. The question being on the adoption of the report.

Mr. Baxter moved that the report be amended so that no premium be offered on sewing machines, but that all facilities be given for a free exhibition without any decision by the society as to their merits. Not agreed to.

The Secretary submitted the following resolution.

Resolved, That a class in the division for cattle be made, to be entitled "Class—Sweepstakes premiums," and that in said class there shall be offered, one premium of thirty dollars for the best bull shown, of any age, breed or locality owned in Michigan, and one the premium of twenty dol-

lars for the best cow of any age, breed or locality, owned in Michigan, and that said premiums are open for animals either thorough-bred, cross-bred, grade or native.

The question being put on adopting this resolution, it was decided in the negative.

The premium list as amended was then adopted.

Mr. Baxter offered the following resolution, which was adopted.

Resolved, That the subject of an address at the annual exhibition, be referred to the President with full power to invite such citizen or other gentleman as he may select, to deliver the same, or dispense with an address as he may deem most proper to the interest of the society.

The committee adjourned till to morrow morning at 9 o'clock.

FRIDAY morning. The committee met, President in the chair.

Mr. Berry from the committee on communications, reported that they had examined the several communications referred to them, and offer the following resolutions.

Resolved, That the thanks of the executive committee are due to Mr. Wm. Huntington, of Howell, for his valuable communication, on the culture of the Cranberry, and that the Secretary be directed to secure its publication as tending to promote the cultivation of a crop of much value to the State.

Resolved, That the communication received from Mr. S. S. Bailey, of Grand Rapids, contains many valuable suggestions, and that we commend them to the attention of the executive committee for such action as seem practicable in accordance with the rules and regulations already adopted.

Resolved, That the communication of Chas. H. Dewey, President of the Lenawee Agricultural and Horticultural Society, is hereby acknowledged, and in accordance with the suggestions contained in it, do recommend that the president and directors of the Lenawee county Agricultural Society be requested to aid the State Society in circulating such information in their several localities relative to its action, and that the Secretary be directed to communicate this resolution to Mr. Dewey.

Resolved, That in accordance with the request contained in the communication received from E. N. Wilcox, Esq., relative to the passage of a law to prevent animals running at large, and thus to prevent them from damaging the expensive public drains now being constructed under our excellent State law, and other public and private property, the executive committee do most earnestly recommend such a law be passed by the Legislature of this State.

Resolved, That this committee heartily concur in the suggestions and recommendations, made by Mr. E. N. Wilcox relative to the encouragement which should be given to thoroughbred horses, suitable for breeding purposes in this State, and to the elevation of the standard by which our domestic animals of all classes shall be judged.

Resolved, That we have examined the subsoil attachment to the common plow, exhibited by A. Blakeslee, of Adrian, and having seen the same at work in the field, consider it a cheap and useful improvement, calculated to assist in stirring the soil below the reach of the ordinary plow, with but a slightly increased draught upon the team, and commend it to the attention of farmers.

The report and resolutions were accepted and adopted.

Mr. Baxter from the special committee on the agricultural college and the establishment of a museum, offered the following report:

The special committee to which was referred so much of the President's address as refers to the agricultural college and the connection of our society therewith, and also so much of said address as refers to obtaining for our society, rooms for winter meetings, collecting a museum and other matters connected therewith, respectfully report.

That they have given the matter such attention as their limited time would permit. The agricultural college should receive, in the opinion of your committee, all the aid, encouragement, moral and material support, our society can afford. It should be our aim to assist the college to gain every facility to develop by careful and scientific experiments the great truths so little known, and yet so important to the agriculturist, and to diffuse the knowlege of results obtained and conclusions arrived at as widely as possible among the farmers of the State. It having been made the duty of our society to furnish to the Secretary of the State Board of Agriculture, who is ex-officio, Secretary of the Agricultural College, a copy of our proceedings for publication with his annual report, your committee deemed it of great import nce that this duty be promptly, fully and heartily complied with, and by this means the farmers of the State who regard this society as peculiarly their own, may be led also to regard the college in the same light, and must be brought to take more interest in the great good it is destined to accomplish, and to give it a more united and cordial support.

The question of securing for our society permanent rooms, and collecting a museum, library, &c., is of great importance, and should receive much more careful deliberation than we have been able to give it. Nearly all State societies of the kind have adopted this plan and are thus enabled to secure permanent results, and have lasting memorials of them laid up for references and experiments, while results arrived at by our society, for the want of this are often inappreciable and were unknown by the great mass of the farming community.

The financial condition of the society has betherto been such as to preclude the possibility of making any serious effort in this direction, but as we are now happily established, as we believe, on a firmer basis, we may safely and in the opinion of your committee, should without delay, lay the foundation of permanent collections of seeds, minerals, zoological specimens, and also of such books as are of especial value to agriculturist and stock breeders, in other words, we should establish a museum and library, which though small at first, will by gradual but systematic and con

tinued additions, become of exceeding interest and value to the entire farming community of the State. To do this successfully we must have some fixed place for our winter meetings, and a building or buildings suitable for the purpose; and here we meet with some difficulty, as for reasons beyond the control of our society, the first and most natural place, on some accounts to be selected is from other causes almost out of the question under the present conditions. The Agricultural College, from its close and special connection with this society, and the agricultural interests of the state, would if in a central and easily accessible locality be at once selected; but from its situation your committee fear in the present condition of things, any attempt by our society to establish rooms, library, museums, &c., and to hold winter meetings for discussions or for lectures that would reach any cosiderable number of our citizens, at the college would prove an entire and disastrous failure, and probably cause an entire abandonment of the project.

This being the case, your committee have given considerable thought to the matter, and have come to the conclusion, that the best interests of this society require that the rooms, museum and library, &c., should be at some central and easy accessible point in the older and more settled portion of the State, and that it should be connected with some one of our State institutions if possible, so as to diffuse more widely the benefits to be derived, and also to secure aid and co-operation; and entertaining these views they have unanimously come to the conclusion that the State Normal School at Ypsilanti, would in the present condition of things, and all things considered, be the most suitable and available institution to act in connection with in this matter, if co-operation can be secured. It has ample grounds, very central locality, is under the patronage of the State, and has for its object the education of teachers for all the schools of the State, and if we can secure rooms on the grounds of this institution and cordial co-operation in the measure, the benefit to the farmers of the entire State will be great and obvious. The teachers of our common shools educated at this institution will become interested and educated in all matters pertaining to the agricultural interest of the State, and extend and diffuse that interest and knowledge to the widest possible extent among all the people of the State, and thus awaken and secure an interest and co-operation with this society not otherwise easily attainable.

Your committee believe that in as much as the establishment of rooms, museum, library, &c., on the Normal School Grounds, must be a mutual benefit to this noble institution and our society, that aid and co-operation could be secured on the part of the Board of Education having that institution in charge, and have therefore recommended the adoption of the resolutions herewith submitted.

Resolved, That the State Agricultural Society, will establish permanent rooms for winter meetings, a museum, Library, &c., at Ypsilanti, on the Normal School grounds, and in connection with that institution, provided consent and co-operation can be secured from the proper authorities.

Resolved, That the amount of $2,000 be appropriated by this society for the erection of a building on the Normal School grounds, provided the amount of $3,000 shall be raised for the same purpose by the State Board of Education, and the citizens of Ypsilanti.

Resolved, That the sum of $250 be appropriated annually to make collections for the museum, library, &c., provided an equal amount shall be appropriated by the State Board of Education, for the same purpose.

Resolved, That the whole matter of carrying out the object specified in the foregoing resolutions and report, and of arranging the details, stipulations and necessary agreements, to secure the results contemplated by the above resolution be referred to the business committee, to act in conjunction with the State Board of Education.

The report was accepted and laid on the table.

Mr. Beckwith offered the following resolution which was adopted.

Resolved, That the thanks of the committee are due, and are hereby tendered to A. S. Berry, Esq., for the able and liberal manner in which he has devoted himself to the responsible duties of chairman of the business committee for the past two years, and that we also thank him for the energetic and efficient aid he rendered the State society last winter in procuring the passage of the act which donated to the State society, the appropriation for the years 1863 and 1864.

Mr. Baxter offered the following resolution, which was adopted.

Resolved. That the thanks of this committee are due to J. A. Walter, Esq., as member of the business committee, for his efficient and untiring efforts in behalf of the society during the past year.

Mr. Welch from the finance committee reported verbally, that the report and vouchers of the Treasurer had not yet been examined for want of time, but that they would be attended to at an early day, and the result forwarded to the Secretary.

Mr. Welch from the finance committee to which was referred so much of the President's address as referes to the salary of the Secretary, reported the following resolution, which was adopted:

Resolved, That the salary of the Secretary of the State Agricultural Society, be made $600 per annum, to take effect from the 1st of Jan. 1864.

An account for advertising by *Michigan Farmer* for the year 1861, was presented and referred to the finance committee.

Mr. Beckwith moved that President be added to the committee on the exhibition of Harvesting Implements. Agreed to.

Mr. Beckwith offered the following resolution, which was adopted:

Resolved, That the committee on trials of Harvesting Implements and Machinery, be authorized in their discretion to suspend or postpone the exhibition, if, after inquiring it be found too expensive, or that the results do not promise to be of a satisfactory nature.

Mr. Green moved that the Secretary be authorized to offer a premium for the best potato digger worked by horse power.

Mr. Berry offered the following resolution, which was adopted:

Resolved, That the annual exhibition be held on Tuesday, Wednesday, Thursday and Friday, September 20, 21, 22 and 23, 1864, and that the location of said fair be committed to the charge of the business committee.

The President announced the special committee to prepare lists of pears, suitable for cultivation in this State, to be Messrs. T. T. Lyon, Wm. Adair, J. C. Holmes, H. G. Wells and A. S. Welch.

Mr. Green moved that the report of the committee on the location of the rooms of the society be taken from the table. Agreed to.

On motion, the committee went into committee of the whole, on the appointment of the viewing committee for the annual exhibition, and after some time spent thereon, Mr. Baxter, chairman reported that the list had been completed.

Mr. Welch offered the following resolution, which was adopted.

Resolved, That the business committee are authorized to revise the list of viewing committees, and to make such changes as may be deemed advisable.

The following resolution was adopted:

Resolved. That Mr. Miles be a committee to procure the publication and distribution of 2,000 copies of points of cattle adopted by the New York State Society.

The President announced that he had assigned the charge of the several departments at the annual exhibition as follows:

Cattle—Messrs. G. W. Phillips and A. G. Bates.

Horses.—Messrs. A. S. Berry and K. C. Barker.

Floral Hall.—Messrs. A. S. Welch, E. S. Moore.

Mechanics Hall and Implements.—Messrs. John Allen and C. W. Greene.

Manufacturers Hall.—Messrs. W. J. Baxter and M. Miles.

Fruit Hall.—Mr. S. S. Bailey.

Police.—Mr. J. A. Walter.

Mr. Berry from the committee on communications reported as follows:

Your committee to which was referred a communication from the Ypsilanti Floral and Horticultural Society, beg leave to report that we agree with the Society, and believe that the Legislature should be memorialized for the passage of a law to require the Supervisors of towns and cities to collect such statistical information as shall be useful and instructive to the people of the State, and to forward the same to the county officers to be by them forwarded to the agricultural department of the State for publication, and we further recommend that the State furnish the necessary blanks to the Supervisors, for that purpose, with directions to collect such information at the time of making the assessments, as often as once in two years. Adopted.

On motion the following resolutions were adopted.

Resolved, That the thanks of this committee are tendered to the gentlemen who have favored the meetings with valuable and instructive lectures which have been delivered before the society at its present meeting.

Resolved, That we tender to the citizens of Ypsilanti our thanks for their kind attentions, with which they have favored the State Agricultural Society at this winter meeting.

Resolved, That the committee tender their thanks to B. Follett, Esq., for the free use of Follett Hall in which our meetings have been held.

The report of the committee on location of rooms for this society was taken up for consideration.

Mr. Baxter moved that the question be taken upon the adoption of all that part of the report recommending a more complete connection with the Agricultural College. The question being put the report was agreed to and adopted.

The question now recurring on all that part of the report relative to the location of rooms, and the collection of a museum, discussion was had thereon and

Mr. Moore offered the following resolution.

Resolved, That so much of the report of the special committee as refers to the location of a museum for this society, be referred to the business committee, with instructions to investigate the whole subject, with reference to expenses of building, location, subscription that may be offered by individuals or by places where it may be deemed in their estimation suitable to locate, and that the business committee have power to act on the same, or to report back their action to this committee, with such other information as may be by them deemed expedient.

This resolution was not agreed to.

The question being just on the adoption of the final part of the report, it was decided in the affirmative.

It was moved that the President be added to the business committee, as the committee to act on the above resolution and report. Agreed to.

On motion the following resolution was adopted.

Resolved, That the Secretary cause to be printed 2500 copies of the premium list for 1864, and that 1500 copies of the reports of the discussions and lectures at the winter meeting, and of the business of the executive committee be printed to be distributed with the premium list.

On motion the committee adjourned *sine die*.

R. F. JOHNSTONE, *Secretary*.

☞ Many very desirable communications have been crowded out this month in consequence of the space occupied by the State Agricultural Society's proceedings; also J. H. Andrus Bee Hive illustration; they will appear in our next.

For the Michigan Farmer.

RECLAIMING MARSH LANDS.

MARSHALL, JAN., 1864.

MESSRS. EDITORS:—Will not some of your readers whose experience in reclaiming and cultivating marsh lands, enables them to speak advisedly in the matter, answer the inquiries of Mr. Calkins, in your December No. These marsh meadows doubtless were of great benefit to the early settlers in affording provender for their farm stock whilst their newly improved lands were being brought under cultivation. Now that that this necessity no longer exists, it becomes an important question how they can be most cheaply and profitable reclaimed, being generally regarded in their *present conditions* as almost worthless in comparison with improved uplands. Thorough drainage puts them in conditions to cultivate; but cannot reasonably expect any profitable results, until the tough sod and peaty matters of which their surface is composed, is converted, by decomposition into a fine vegetable mould. Not long since I commenced on my farm reclaiming some ten acres of marsh, but am not yet prepared to announce any profitable results. This marsh being caused partly by springs rising in it, as well by the flowing of water from the surrounding uplands, an open ditch was cut through the body of it to conduct to the proper outlet, the water conveyed in covered lateral drains, leading from springs and from other parts of the marsh. I intend to complete the drainage by deepening the main ditch, now entirely too shallow and constructing the side drains as soon as an outlet for the water can be obtained by deepening the ditches in the adjoining lands. When there are no springs in the body of the marsh, the wetness being caused by water oozing out from the surrounding hard land and spreading over the surface, the drainage can be most readily and effectually accomplished by encircling the marsh with open ditches cut along the upland, open ditches through the body of a marsh, for obvious reasons should if possible be avoided. Being strongly persuaded that a large share of these marsh lands when properly managed, may be turned to good account in growing the most of our field crops, some of the cereals perhaps excepted. I trust that those of your readers who have had the energy and will to bring them into cultivation, will give the details of their operations as to the manner of drainage and subsequent treatment. Have not liberal applications of lime proved highly beneficial in their incipient cultivations, not only in neutralizing the acids, with which such soils are ever charged, but by hastening the decompositions of tough sod and vegetable matter that lies near the surface? As it will require some length of time for the heavy surface sod to decompose and become perfectly rotten, marsh lands when reclaimed will probably improve for a few years by cultivation. We have no reason to expect their *permanant* improvements if we withhold the timely applications of mineral manures in which they are naturally deficient. I am inclined to think that top dressings of both leached and unleached ashes would prove highly beneficial in supplying this mineral plant food.

WM. B. SCHUYLER.

DRAINING OF SWAMP LANDS.

We extract the following correspondence from the "Journal of the N. Y. State Agl. Society" as the experience of a Long Island farmer in draining swamp lands. It is worthy of the perusal of our readers as Michigan contains much swamp land which, when reclaimed, must prove most profitable and rich soil:

As but few experiments have been made in this favored section in draining swamp lands—deemed by many almost worthless and as what may have been accomplished has seldom met the eye of the farming interest, it will be my endeavor, in a brief way, to show that few investments will realize better, and that no lands can be rendered more highly productive. The careful farmer, though of a reflective turn of mind, is not usually inclined to experimenting, except on a limited scale; yet in the general, if I mistake not, it is only necessary to exhibit a fair probability of profit, to enlist his prompt acquiescence in new enterprises; and it will be a source of great satisfaction if the following statements shall serve in any measure to awaken new interest in this important branch of agricultural operations.

The land of which I now propose to speak is situated in a valley declining to the west, consisting of about twenty acres, one third of which was black muck, or peat, of various depths, the greatest being about seven feet; the remainder, a heavy slate-colored loam, bordering on clay. The substratum was hard-pan, occasionally met with in this region of sufficient closeness to hold water. The tract sloped gently upward right and left from the centre, facilitating drainage. I commenced by opening a main canal from west to east from the lowest point of depression. As the adjacent land afforded but a slight fall, this opening was at first only about one foot deep by three feet wide at the top, increasing gradually to the highest point, where it reached the depth of four feet; this became necessary, as it took the water from the more elevated fields. This principal channel remains open from necessity, a portion of it which had been closed being forced open by pressure. It was ascertained that the water, which at times

entirely submerged the swamp, was derived in part from springs, which were discovered while running the cross drains. These drains were generally at distances of about two rods apart, being from two and a half to four feet deep by six inches wide at the bottom and eighteen inches at the surface. For one-third of the space I brought into use draining tile of the "horseshoe" pattern; for a part of the remainder I used small stones, and for the balance brush, to which I was obliged to resort in the absence of a firm bottom; and much to my surprise, after a test of five years, this latter work remains sound, and even more reliable than either of the others, discharging copiously, and as yet required no repairs. The result so far is highly encouraging, and with a few additional drains the whole plot will be reclaimed.

Those who were familiar with this swamp in bygone years would now scarcely recognize the spot. A more forbidding spectacle could scarcely be imagined, the whole being densely covered with sumach, alders, and the usual vegetation incident to such localities, while the higher surfaces contiguous were thickly overrun with briars of like noxious growths. In fact, such was its condition, that portions of it were untrodden by the foot of man; in confirmation of which, it may be here stated, that while excavating the main channel, the remains of two farm cattle were discovered in such positions as to indicate that they had been entangled and mired, without any effort having been made for their recovery. The enterprise was attended at times with discouragements, and it was only by virtue of perseverance, as in all difficult undertakings, that success was eventually attained.

Now, the question may be asked, "why expend so much to recover waste lands, where, for an equal outlay, improved lands could be obtained? I have a ready answer, and first the land itself is of the highest value. This is no longer a problem I have produced corn of the best quality and largest quantity. One half the area was sown wheat last year, which was of rank growth and good yield, producing, so far as thrashed, twenty bushels to the acre; and had it not been for the weevil, the result must have been nearly double. It grows celery four to five feet high; cabbages have been taken from it weighing twenty pounds to the head; mangel wurtzel and turnips from limited experience have resulted well. Of potatoes I cannot speak so favorably, the exuberant growth of the vine reducing the size of the bulb. But as grass growing land I cannot say too much of it. It is true that hardly sufficient time had transpired to give full results; I can only conjecture what might be attained, when I state that, after removing the wheat crop, I drew late in the fall from four acres ten large loads of grass and weeds, which were removed to guard the growing plant from injury. It will thus be seen from the figures that the investment has proved beyond all peradventure a profitable one, placing the real value of this land far above the estimate affixed to the accompanying statements; and secondly, apart from the question of dollars and cents, other essential objects have been attained. The whole landscape, heretofore marred and unsightly, has been rendered pleasing to the eye, and an object of pleasureable contemplation to the admirers of the beautiful. The surrounding neighborhood has ben benefited by additional guarantees to health in the renovation of a fountain of miasma and disease; and lastly, it has furnished employment and support to men and families during the usually inactive season of winter—all the labor having been accomplished during that period and early spring.

I submit the following statistics. The cost may appear large, but it must be borne in mind that the entire tract had to be grubbed. The ashes were the product of roots, bushes, etc., gathered and burned upon the ground. I might add much more in detail, but fear I have already transcended my proper limit. I may hereafter take occasion to give further practical results.

The valuation of the land in its primitive state is placed at $25 per acre		$500 00
Total expense (without fence) during five seasons		1,533 16
		$2,033 16
To the credit of which place 2,000 bushels of ashes at 10 cts.	$200 00	
920 cart loads of muck at 25 cts.	$231 50	
Less expense of hauling	115 50	
	126 00	
25 loads of wood at $4	100 00	
20 acres of land, estimated value	$200 4,000 00	
	4,436, 00	
Showing a net gain of		$2,302 84

THOMAS MESSENGER.

Great Neck, L. I.

CARE OF HENS WINTER.—Farmers as a general rule neglect their hens in winter. They are left to pick up what they can and about the barnyard; if they get sufficient food, well; if not, no matter. This is cruel, and decidedly unprofitable. If it will not pay to keep them in good condition it will not pay to keep them at all. They should have a warm and clean place to roost in, and the farmer should see that they never suffer from the lack of food. A little light grain or buckwheat, with a few boiled potatoes, turnips, mangel wurzel, or other succulent food will generally be paid for by the eggs laid during winter and in the spring fourfold. Hens starved during winter will not furnish many eggs the coming spring.

ADVANTAGE OF DRAINING.

Thorough draining with "deep plowing and good tillage *is manure.*" How does drainage deepen the soil? Every one who has grown deep-rooted vegetables upon half drained or wet land has observed that they would not extend downward their usual length. Parsnips and carrots on such land often grow large at the top, but divide into numerous small roots below the surface and spread in different direction. No roots, except water plants, will grow in stagnant water. If it is of any advantage to have a deep rather than a shallow soil, it is necessary to lower the line of standing water at least to that extent to which the roots of our cultivated crops descend. A deep soil is better than a shallow one, because it furnishes more food and nourishment to plants which they search out in the subsoil (where it has been washed by the rains) as well as at the surface, if no obstacle opposes. By striking deep roots, the plants stand more firmly and are not so easily drawn out or shaken by the winds. Again, *a wet soil cannot be pulverized.* Plowing clayey or loamy soils tends to press it together and render it less pervious to rain and water.

The first effects of *underdraining* is to dry the surface soil to draw out all the water that will run out of it, so that in early spring or autumn it may be worked with the plow as advantageously as undrained lands in midsummer.

Most land which is not in grass is liable to surface washing in spring and full if not drained; being already filled with water that rain cannot pass directly downward, but runs away on the surface, carrying with it much of the soil, and washing out the valuable elements of fertility. If the land is properly drained the rain is absorbed and pass downwards, saturating the soil as it goes and carrying soluble substances with it to the roots, and the surplus, if any, percolates through the drains below. The absorbent power of drained land is so great at times after a drought, that all the water of a heavy shower will be held or drank up by the soil, so that none will find its way into the drains for a day or, nor run upon the surface. Again it allows the farmer to start his team in the spring so much earlier, to prepare for oats, corn and potatoes, &c., to say nothing of the garden and early vegetable growers, where the season is often lengthened two weeks at each end, as a farmer once said to his neighbor, who planted his corn on a well drained field the day after a rain storm of two days, "To have planted mine at the same time, I should have to do it from a raft."—Many farmers have the same privileges of *rafting*, where it would be profitable to spend some time in *ditching* before the spring rains set in and fills the springs to overflowing.

G. Veomans, of New York, says in a published statement, that on his drained lands "the ground becomes almost as dry in two or three days after the frost comes out in spring, or after a heavy rain, as it would in as many weeks without draining." The additional time gained for vegetation is important. One or two weeks often secures the corn crop against frost; a few days is often sufficient for the grain to pass from the milky to the glazed state, before which a single frosty night may injure if not ruin it. When the grain reaches the latter stage, it is safe from cold, and twice the time alluded to is added by this removal of the surplus water.

Thorough drainage of our wheat and grass fields prevents that difficulty of freezing out, which most of us, who have wet or stiff loam or clayey land know. J. Johnston, of Seneca county, N. Y., who had been experimenting with tiles from 1835 to 1851, and had laid 16 miles of them on a few acres of his clayey land raised the largest crop of Indian corn produced in that county, being 63 bushels of shelled corn per acre; he says, on this clayey soil, when laid down to grass, "*not one square foot of the clover frose out.* But before, many acres of wheat were lost on the upland by freezing out, and none would grow on the lowlands. Now there is no loss from that cause."

It is on account of this winter-killing or freezing out, that farmers have such great difficulty in getting and keeping their fields in grass, particularly clover and some other grasses of similar growth, the soil being pulverized only a few inches in depth, unless we have *plowed deep*, and then only to the depth of the plow. Below this there is a stratum of clay or *tight loam* nearly impervious to water. The fall rains saturate the surface soil, which holds it like a sponge if it has been well pulverized before seeding. The ground is suddenly frozen and crystalized into ice, the soil being thrown up and the clover roots and wheat are drawn up with it, often approaching a little like honeycomb. A few such operations are sufficient to draw them out root and branch, and to our sorrow we see them laying dead on the surface of the field in the spring. *Thorough draining*, followed by subsoiling, or deep plowing, lets down the water through the soil, leaving the roots so free from an excess of it that the ground is not "heaved up" at all; the plants retain their position, and when the warmth of the genial sun reaches them, are ready to strike root downward and spring upward with renewed vigor, refreshed by their winter's repose. —*Rural Advertiser.*

Peas and Potatoes.—Strange Result.

A. Kirkwood, Esq., sends us the following: "We give here what we have written under this title in No. of the *Gazette* of 1st of May.

"A French agriculturis made last year a singular experiment the success of which has surpassed all expectations. He planted four potatoes, two of which received each a bean, and the other two each a pea. In a very short time the peas and beans brought forth very vigorous shoots, which furnished to their proprietor four copious dishes. But the most remarkable thing was that the potatoes sprouted wonderfully, and were not touched by disease Still more, the tubercles multiplied themselves extraordinarily; the first stop yielded thirty-eight fibers; the s cond thirty; the third twenty-nine, and the fourth twenty-eight—all very healthy.

"We shall terminate this little article by inviting our readers to try the same experiment, and make known to us the result of it. But as we shall know beforehand that the agriculturists have little love for novelties, we take it upon ourselves that which we have advised them to do; and here is the fruit of our experiment. We have planted sixteen potatoes, all of which had received a pea and a bean. Never have we noticed a more vigorous vegetation. The shoots of the potatoes, as well as those of the peas, have universally averaged a heighth of from five to six feet. The tubercles, which were numerous measured, for the most part, from sixteen to eighteen inches in circumference. The whole production is four minots and a quarter. As to the peas, the husks, were also very numerous, but most of them could not ripen, because they found themselves enveloped in a mass of shoots and leaves. The tubercles had been planted too near each other.

"This experiment has been made by an agriculturist of St. Famille (Isle d'Orleans.) He has planted three potatoes all of which had received each a pea. These three potatoes yielded forty-seven tubercles, quite remarkable for size. This agriculturist is so well satisfied with the result of his experiment, that he has decided to follow this same method for all his potato planting the next year."—*Gazette des Campagnes Quebec.*

LARGE GEESE AND DUCKS.—At the late Birmingham (England) poultry show—said to have been "the greatest show ever seen"—the three first-prize white geese weighed 67 lbs.; those which took the second prize, 62 lbs; and those which took the third, 58 lbs. Young geese of the same breed, weighed 52 lbs. and 50 lbs., the trio. Of gray and mottled geese, the first prize lot of three weighed 77 lbs.; those which took the second prize, 75 lbs; and those which took the third, 70 lbs. Young geese in the same class, weighed 63 lbs. and 57 lbs. the trio. The three first-prize Aylesbury ducks—a drake and two ducks—weighed 25 lbs.; those which tooke the second prize, 24¾ lbs., and those which took the third, 24½ lbs. The three first-prize Rouen ducks weighed 23 lbs; the three which took the second prize, 22½ lbs.; and those which took the third, 22 lbs.

MICHIGAN TIMBER SOUGHT AFTER.—An agent of the National Armory at Springfield, Mass., is at present in Detroit, having visited Michigan for the purpose of procuring stocks for muskets. He has contracted for 300,000 stocks to be delivered at Decatur and Lawton in Van Buren Co., and Dowagiac in Cass Co. This large amount will comprise at least 110 car loads.

FOREST MANAGEMENT.

The following very sensible remarks are from the "Canada Farmer," which is equally applicable to Michigan, especially during the present scarcity and high prices of lumber, ship timber and firewood:

Settlers in a new country very generally wage a war of extermination against the "trees of the wood." They come to look upon them as natural enemies and cumberers of the ground, whose inevitable doom is to be cut down and cast into the fire. Since their removal is the first step toward marking a farm out of the wilderness, they sweep them away as rapidly as possible. The consequence is, that many stretches of country have come to be nearly, if not quite as bare as a Western prairie, on which no plant or shrub knee-high can be seen. A monotonous belt of woodland stretches away in the rear of the cleared portions of the farms through which the highways run, but beside that, scarcely a single tree or grove diversifies the scene. This wholesale destruction of the forests of Canada and elsewhere is an evil that begins, at least in many localities, to demand a check. Firewood grows scarce and dear, the landscape is becoming naked, it is difficult to procure timber suitable for various mechanical uses, the shelter needed by many crops in exposed situations is removed, and unfavorable climatic changes are taking place, which can be clearly traced to the wholesale and indiscriminate destruction of timber. A little exercise of judgment, forethought and taste, would mend matters very much. For example, why cannot some of the young wood be preserved when land is cleared, to form groups that shall at once ornament the landscape, furnish shade for stock when scorching summer sun pours down its almost tropical rays, and act as a wind-break when cold and biting blasts sweep over the fields? It seems absurd to destroy every green thing and then set about planting anew. There are many choice forest trees that transplant with difficulty, but which, left while small where nature placed them, become objects of surpassing beauty and and great utility. What is to hinder the settler from availing himself of that best natural protection in bleak situations, the woody and leafy screen which he finds ready to his hand? How much comfort might be secured to the tenants of the dwelling and the farm-yard, if the house and barn were surrounded by a grove? Why cannot the standing wood which is kept as a reserve for fuel be gradually thinned out, and so managed that it shall be an ornamental appendage to the farm and a favorite run for the stock? Moreover, is it not important that second-growths of timber needed by the carriage-builder, cooper, cabinet-maker, and others, should be encouraged, and, in fact, forest culture made a department of farm economy and management? If we mistake not, these hints and queries open fields of reflection which many of our readers would do well to look at, especially at the present season of the year, when it is so common to "cry havoc and let slip the dogs of war," in the shape of ruthless axes, wielded by relentless choppers, beneath whose fell strokes every twig and sapling quickly disappears.

There is not only great need of intelligent forest management on the farms scattered up and down the land, but the preservation of trees upon the sites of towns villages is a most important matter. Nature has made many of these sites indescribably beautiful. Centuries have been occupied in the growth of graceful and magnificent trees; hill, plain and valley diversify the surface af the land, and sparkling rills flow muscally through the sylvan dells. All is lovely till man invokes the scene. Full of utilitarian ideas, bent on speculation, and having no eye for natural beauty, the founder or founders of a new town or village allow, unchecked, raw emigrants and ignorant day-laborers to begin and carry on the work of spoliation and disfigurement. Grand old oaks, graceful elms, beautiful pines, hemlocks and balsams, which furnish ornament and shade, such as generations must wait for from human planting, are mercilessly felled; the royal head of every monarch of the forest is humbled to the earth, and no vestige of a tree is left, except the unsightly trunks that, piled one upon another, form the habitations of the Goths and Vandals that have conquered the region. When the destruction is not thus complete at first, and here and there a few trees are left, some idle shanty-man or stupid road-master will destroy what settlement and time have spared. We have in our eye at present a Canadian town of some size and age which has many noble elms, maples, beeches, balsams and hemlocks in its environs, which are rapidly disappearing in the way just hinted at. Surely proprietors and municipal authorities ought to intefere and put a stop to the wholesale destruction and pillage of beautiful and valuable timber.

WORTH KNOWING.—*Transplanting Trees.*—If the Commissioner of the Central Park would give strict orders to mark the North side of trees with red chalk before they were taken up, and when set out to have the tree put in the ground with its north side to the north in its natural position, a larger proportion would live. Ignoring this law of nature, is the cause of so many transplanted trees dying. If the north side is exposed to the south, the heat of the sun is too great for that side of the tree to bear, and therefore it dries up and decays.

MISCELLANEOUS.

Feeding and Management of Cows.

From a book entitled "Cattle and their Diseases," by Dr. Jennings, lately published by C. M. Saxton, New York, we extract the following valuable suggestions:

"No branch of dairy farming can compare in importance with the management of cows. The highest success will depend upon it, whatever breed be selected, and whatever amount of care and attention be given to the points of the animal; for experience will show that very little milk comes out of the bag that is not first put into the throat.

An animal to be fully fed and satisfied, requires a quantity of food in proportion to its live weight. About one sixtieth of their live weight in hay, or its equivalent, will keep horned cattle on their feet, but in order to be completely nourished, they require about one-thirtieth in dry substances, and four-thirtieths in water, or other liquids contained in their food.

The variations in the yield of milch cows are caused more by the variations in the nutritive elements of their food than by a change of the farm on which it is given. A cow kept through the winter on mere straw, will cease to give milk; and when fed in spring on green forage, will give a fine quantity of milk. But she owes the cessation and restoration of the secretion, respectively, to the diminution and increase of her nourishment, and not at all to the change of farm or outward substance in which the nutriment is administered.

Let cows receive through the winter nearly as large a proportion of nutritive matter as is contained in the clover and fresh grass which they eat in summer, and no matter in what precise substance or mixture that matter be contained, they will yield a winter's produce of milk quite as rich in casain and butyraceous ingredients as the summer's produce, and far more ample in quantity than almost any dairyman with old fashioned notions would imagine possible. The great practical error on this subject consists, not in giving wrong kind of food, but in not so proportionating and preparing it as to render an average ration of it equally rich in the elements of nutrition, and especially in nitrogeous elements, as an average ration of the green and succulent food of summer.

We keep too much stock for the quantity of good and nutritious food which we have for it; and the consequence is that cows are, in nine cases out of ten, poorly wintered, and come out in the spring weakened, if not, indeed, possitively diseased; and a long time is required to bring them into a condition to yield a generous quantity of milk.

It is a hard struggle for a cow reduced in flesh and in blood to fill up the wasted system with the food which would otherwise have gone to the secretion of milk; but if she is well fed, well housed, well littered and well supplied with pure, fresh water, and other moist food, and properly treated to the luxury of a frequent carding, and constant kindness, she comes out ready to commence the manufacture of milk under favorable circumstances.

Keep the cows constantly in good condition, ought, therefore, to be the motto of every dairy farmer, posted up over the barn and on and over the stalls, and over the milk room, and repeated to the boys whenever there is danger of forgetting it. It is the great secret of success; and the difference of success and failure turns upon it.—Cows in milk require more food in proportion to their size and weight than either oxen or young cattle.

In order to keep cows in milk well and economically, regularity is next in importance to a full supply of wholesome and nutritious food.—The animal stomach is a very nice chronometer, and it is ot the utmost importance to observe regular hours in feeding, cleaning and milking.—This is a point, also, in which very many farmers are at fault—feeding whenever it happens to be convenient. The cattle are thus kept in a restless condition, constantly expecting food when the keeper enters the barn; while, if regular hours are strictly adhered to, they know exactly when they are to be fed, and they rest quietly till the time arrives. If one goes into any well regulated dairy establishment an hour before feeding, the whole herd will be likely to rise and seize their food with an avidity and relish not to be mistaken.

Roots and long hay may be given during the day; and at the evening milking, or directly after, another generous meal of cut food, well moistened and mixed, as in the morning. No very concentrated food, like grains alone, or oil-cakes, should be fed early in the morning on an empty stomach, although it is sanctioned by the practice in the London milk-dairies. The processes of digestion go on best when the stomach is sufficiently distended; and for this purpose the bulk of food is almost as important as the nutritive qualities. The flavor of some roots, as cabbages and turnips, is more apt to be imparted to the flesh and milk when fed on an empty stomach than otherwise. After the cows have been milked and have finished their cut feed, they are carded and curried down, in well-managed dairies, and

then either watered in the stall—which in cold or stormy weather is far preferable—or turned out to water in the yard. While they are out, if they are let out at all, the stables are put in order; and, after tying them up, they are fed with long hay, and left to themselves until the next feeding time. This may consist of roots—such as cabbages, beets, carrots, or turnips sliced—or of potatoes, a peck, or—if the cows are very large—a half bushel each, and cut feed again at the evening milking, as in the morning; after which, water in the stall, if possible.

The less cows are exposed to the cold of winter, the better. They eat less, thrive better, and give more milk, when kept housed all the time, than when exposed to the cold. A case is on record, where a herd of cows, which had usually been supplied from troughs and pipes in the stalls, were on account of an obstruction in the pipes, obliged to be turned out thrice in a day to be watered in the yard. The quantity of milk instantly decreased, and in three days the diminution became very considerable. After the pipes were mended, and the cows again watered as before, in their stalls, the flow of milk returned.—This, however, must be governed much by the weather; for in very mild and warm days it may be judicious not only to let them out, but to allow them to remain out for a short time, for the purpose of exercise."

POULTRY YARD.

The production and rearing of domestic fowls, though one of the lesser interests of the farm, is well deserving of more attention than it usually receives. It is an old proverb, that what is worth doing at all is worth doing well, and comparatively insignificant as this branch of rural economy may seem, it can be made to pay a handsome return for the time and trouble devoted to it. Moreover, a good supply of poultry and eggs all the year round, is no mean item among the conveniences and comforts of the farmer's home. No agricultural interest, however small, can possibly be thrifty and prosperous if left to take care of itself. Many a shakes his head in grave doubt whether it is profitable to keep poultry, and what wonder if the hens are left to steal their nests; rats, &c., are permitted to rob them of their eggs, and the only taste of chicken ever got is now and then a half-starved biped, that has lived precariously, and been caught and killed "promiscuously." Every tiller of the soil has the facilities for keeping poultry profitable and thrifty. But in order to this, he must be willing to take a little care and trouble, in the way of providing houses, nests, and other conveniences. With simple, inexpensive, yet suitable arrangements, very little attention will be required to make poultry-keeping both pleasant and profitable. The daily care of the poultry yard,—feeding, watering, and otherwise attending to the comfort of its inmates, may usually be left to the farmer's household. Properly managed, it will be rather an amusement than a toil to them.

Taken in the aggregate, poultry and eggs form important articles of commerce, and could we get at the exact value of their annual production and consumption, we should be surprised at the accumulation of littles into immense totals. It is, however, only approximate estimates that can be made, yet these give some idea of the real importance of a branch of agricultural economy, which at first strikes the mind as trival. Thus it is computed from reliable data, that the annual production and consumption of poultry and eggs in the United States cannot be less than $15,000,000. Monsieur de Lavergne, estimates that the poultry of Great Britain for 1861-2, was of the value of twenty million francs (40,000,000); while the total value of the two products—poultry and eggs—in France, at the same period, reaches two hundred millions of francs ($40,000,000.) This last estimated product leaves a large margin for exportation from France over and above the requirements for home consumption, which surplus is sent chiefly to England. In 1861, the whole value of poultry and eggs imported into England was £385,000 stg., or nearly $1,800,000. This, of course, is independent of the large quantities raised by England on her own soil. These figures are quoted briefly, to show the importance of this branch of rural economy in other countries, and thus to suggest its magnitude in our own. In relation to Canada, the only figures at hand are those furnished by the Trade Returns for 1862, viz: Poultry exported, $20,546; Eggs ditto, $54,940; total, $74,486. All the poultry, and nearly all the eggs, were sent to the United States, and but for the unfavourable state of the money market, an immense poultry and egg trade might have been done in that direction. If there be added to the export returns the quantity and value of these articles consumed at home, it will be seen that the tenants of the poultry-yard are by no means to be despised, but are entitled to more appreciation and encouragement. While, therefore, we dilate on the merits of the Shorthorns and Galloways, Southdowns and Cotswolds, Suffolks and Berkshire, we shall not forget the Dorkings, Spanish and Cochins, and their congeners of the poultry-yard.—*Canada Farmer.*

☞ The Wool Growers's Association of Parma, Jackson Co., having stored all their wool in one bulk at their railroad at that place, the total amount being 60,000 pounds, to be held until a certain price can be realized therefore, and then sold.

LIBRARY

ROLLERS.

A correspondent of the N. H. Journal of Agl. says:—The use of rollers on the farm is becoming more and more indispensible. It is very material for those unaccustomed to their use, to suppose their effect would be the consolidation of the seed bed to an injurious extent, especially on moist or clayey soils.

After having taken great pains to pulverize and lighten up the soil, to cast in the seed, then to press it compactly together again, would seem labor worse than lost, if facts did not controvert it.

A soil in good condition to work, and in good heart for a crop, will not very readily be made too compact for the vegetation of the smaller seeds. But on the other hand, the process will be greatly stimulated by the proximity of the finer particles to the seed. The same temperature that prompts the seed to vegetate, induces fermentation in the animal and vegetable matter, in the form of manure around it, and the more compact the bed, the better medium for the reception and transmission of heat—provided, however, there is not water enough to render the mass doughy or mortar-like.

The advantage of having the surface very smooth is more obvious since the introduction of mowing machines. The old method of "bushing" the surface does not so effectually smooth it, as to pass over it with a roller. Almost any farmer that can 'shoe a sled' can make such a roller, if he has the materials. A regular built roller is better than a large log, and one four feet in diameter better than one two or three feet.

I constructed a roller in the following way:—Four feet and four inches in diameter; drew a circle of four feet on a smooth floor; drew a line through the center one way and crossed it by another directly perpendicular to it; laid a piece of half-inch board a foot wide on the circle, one quarter of it, and cut out of it a pattern to make the roller, which was cut from two inch plank, made double at each end, and firmly pinned together; arms were framed to those heads for the gudgeons of the center. I covered it with spruce-flags three inches wide, two inches thick, and five and one-half feet long, spiked to the heads; it was then hooped with stout old tierce hoops, made to its size. The gudgeons were iron pins passing through the center of the arms with a head outside, and fastened in with keys through the inside. The side pieces were three by four inch joice, about five feet long. Immediately in front of the roller a deep piece was framed into these sides and on the under side four inches in front of that was pinned another cross piece, and on the top of them another cross piece a foot or more from the first mentioned, this forming a place into which any old sled spear and roll could be inserted and taken out with a moment's labor, making the roller occupy much less room when stowed away.—A roller made of hard wood would be harder and better than if made of soft wood.

Report of the Commissioner of Agriculture, for the year 1862.

Many our readers perhaps have not heeded that an Agricultural Department has recently been established in connection with the Federal Government at Washington; or, in other words, that the Patent Office, as far as Agriculture is concerned, has been superseded by a separate and independent department; the first fruits of which, in the above report, are now before us.

The present report is undoubtedly very superior as a whole to any of its predecessors that emanated from the Patent Office, and reflects great credit on the industry and skill of Mr. Commissioner NEWTON, and his coadjutors, who evidently possess the requisite qualifications of conducting this most valuable department of government with ability and success. The volume is handsomely got up, and contains upwards of forty articles on rural pursuits, from writers distinguished for experience and ability. Our readers will form an idea of the contents of the volume from the subjoined summary of the principal articles:

Mr. Goodale, the able Secretary of the Maine Board of Agriculture, has a valuable paper on the Breeding of Animals; Levi Bartlett on Wheat Growing in New Hampshire; L. Bollman, of Indiana, on the Wheat Plant and Sorghum Culture; Sanford Howard, of the *Boston Cultivator*, on Kerry Cattle and Different Breeds of Horses; Joseph Harris, of the *Genesee Farmer*, on Stall Feeding Cattle and Sheep; J. J. Thomas on Farm Implements and Machinery; Dr. Hall on the Health of Farmers' Families. There also interesting articles on Wild Flowers, the Ailanthus Silkworm, Flour Making, Coal Oil, Preservation of Food, Agriculture in Morocco, &c. The Horticultural subjects embrace—Shelter and Protection of Orchards, Popular Varieties of the Apple and Pear, Climatology of American Grapevines, &c.—We are also indebted to Mr. Grinnell, Chief Clerk of the Department, for copies of the Monthly Crop Report, a document that is got up with much labor and care, embracing the whole Union. The matter which it contains must be of the greatest value to the farming and commercial portions of the community.

Our thanks are due to the HON. A. C. BALDWIN for a copy of the above report and also the Commissioner of Agriculture.

HORTICULTURE.

INSECTS INJURIOUS TO FRUIT.

CURCULIO.

The "plum weevil" infest the cherry, the apple and other fruits. It is the *Conotrachelus nenuphar* of Herbst, but is most popularly known by the simple appellation of "curculio." This insect is scarcely a quarter of an inch in length, of a rough exterior, and colored in blotches of brown and grayish white. Two elevated warts or tubercles are about the middle of the wing covers, behind which are two larger blotches of white. The larva, a white or reddish white maggot or grub, usually found in the various kinds of fruit during the months of May and June. The insects undergo their final transformations in the ground; but whether they certainly bring forth more than one brood during the season is not yet fully determined; or whether the last brood remains in the ground until the following spring, or comes forth and hibernates during the winter, as many other insects do, seems to be involved in some doubt. Probably there is no other insect in the whole catalogue upon which so much has been written and talked about as the one under consideration, and yet it appears that no certain remedy has been discovered to prevent its destructive attacks upon the fruit, especially the plums of various kinds. As soon as the young plum has acquired sufficient pulp to nourish the young grub, the female "curculio" may be seen cutting crescent-shaped incissions into it and depositing therein an egg, and in this manner she will visit all the fruit until her stock of eggs is exhausted. When the tree and the fruit are of vigorous growth it often happens that the gum that exudes from the wound carries out the egg with it, and there becoming a hard globule, with the egg inside, the economy of the insect is entirely defeated, and the fruit escapes. If the trees are jarred in the cool mornings, before the insect has acquired its wonted activity, it falls to the ground and may be secured, or may become a prey to poultry. It has frequently been observed that plum or cherry trees standing in poultry yards, or with the branches hanging over water, or being paved underneath, have usually few or no curculios in the fruit. Fruit growers should make it a point to gather up all the green or immature fruit under their trees immediately after it falls, and thus prevent the young grubs from going into the ground to mature their state.

More than two hundred and twenty species of the various kinds of *curculio*, or "snout beetle," have been described and named as indigenous to the United States, many of them so nearly resembling each other in habits and form as to be scarcely distinguishable by any but a practiced naturalist, but all bearing so close a resemblance to the forms of those discribed in these pages as to enable the amateur to distinguish them from other either destructive or beneficial tribes, and therefore cannot go wrong in destroying all insects and grubs of the forms here spoken of, for their habits, although they may not be to the same extent destructive, yet the approximation is too close to allow their toleration.

APPLE TREE BORER.

Probably the *most* wide-spread and universally destructive insect to *fruit* trees is the "apple tree borer," [*Saperdo bivittata*,] and which has hitherto almost defied all the efforts resorted to for its extermination. These insects deposit their eggs in the trunks of apple trees near the ground, and the grub works its way into the solid wood, where it passes the first year of its larvahood immediately beneath the bark, eating its way both upward and downward in a widened burrow, which it fills up after it with gnawed particles of woody fibre or sawdust-like garbage. The second year they may be found, considerably increased in size, imbedded in the solid wood a little further in from the surface, and the fibre which fills the burrows which they have made is much coarser and longer, and seems to have been driven in with a caulker's chisel. The third year they increase the size of their burrows and gnaw out towards the surface of the trunk, assuming a horizontal instead of a vertical position, and in a sort of rude cocoon, cemented together from the fibre that surrounds them, and with the head outward, they change to a pupa, and in the month of June cut their way through the bark by means of their sharp and strong jaws, and come forth a perfect insect, about three-quarters of an inch in length. The color of the upper part of the thorax and the wing covers is a light brown, with 2 white longtitudinal stripes from the head to the end of the elytrons; the head, the feet, the antennæ, and the whole underneath of the insect is a mealy white; and the eyes are a dark brown, and notched, to admit the base of the antennæ. The mature larva is a yellowish white, fleshy grub, and fully an inch and a quarter in length; the head is a light brown, and the feet rudimental; the segmental divisions are very prominent, projecting in tubercles above and below; the first segment is large and flattened, which is the case with all the larva belonging to this group.

Various remedies have been suggested for the destruction of these insects, the most reliable of which, in my estimation, is for all fruit growers to make to make themselves acquainted with the

history and appearance of them in their various forms. The first season after the eggs are laid by the female beetle, the young larvæ may be found immediately beneath the bark, and a portion of their cuttings may be cut out with a sharp instrument or reached with a sharpened wire, and thus destroyed, but the second or third year they are not so easily reached without injuring the tree. When, however, the mature insect can be identified, and the season of its appearance and departure known, the trees may be protected against them about the trunk and roots by various contrivances, such as are usually resorted to for the protection of the peach tree. June seems to be the month in which they are the most active in the perfect state, and after the 1st of July they are rarely seen, except, perhaps, an occasional belated straggler. Their native wild tree is the hawthorn, and the fact that they are partial to *young* apple trees may suggest the propriety of surrounding apple orchards with hawthorn hedges, to attract the beetles, and there leave them to the mercy of the birds. I have often found them concealed among the leaves of these hedges during the day, from whence they issue in the evening.

RASPBERRY BORER.

Allied to the immediately preceeding insect is the raspberry borer," [*Oberea tripunctata.*]

This insect is about half an inch in length, and cylindrical in form. The color of the whole insect, except the thorax, is black; the thorax is a rusty yellow or yellowish brown, with three black punctures or spots on the top of it. The antennæ of the males are nearly as long as the body. At the place where the mature insect eats its way out of its burrow the cane becomes so much weakened as to break off the first wind that blows. The larva feeds upon the pith of the raspberry, and finishes its transformations about the first of July or later—sometimes near the end of the month—and the females deposit their eggs in the beginning of August.

A rich farmer's son who had been bred at the University, coming home to visit his father and mother, they having one night a couple of fowls for supper he told them by logic and arithmetic, he could prove these two fowls to be three.—"Well, let us hear," said the old man.—"Why this is one," said the scholar; "and this," he continued, "two; two and one you know, make three." "Since you have made it out so well," answered the old gentleman, "your mother shall have the first fowl, I will have the second, and the third you may keep yourself for your great earning."

Observations on Orchards and Fruit Culture.

From experimental knowledge I make the following remarks: In the first place, success in fruit-raising very much depends upon the location of an orchard. I have found a cold, sandy subsoil, to produce large barren trees that required the best of cultivation to get a little fruit. Trees planted upon high ground, over clay or clay gravel subsoil do much better; but an orchard planted upon strong, rich, rocky land, produces the longest-lived and most productive trees, requiring the least labor to obtain an equal amount of fruit. But without care and watchfulness, orchards on any kind of soil will disappoint us.

I have one tree on the slope of a hill inclining to the south, the subsoil a clay gravel. It was transplanted about 60 years ago, and has been a constant bearer every second year except one, for nearly 50 years. The bearing year was the even year till the blossoms were killed by a severe frost which changed the bearing season to the odd year, and it has continued to produce every odd year from 20 to 40 bushels of apples for the last 30 years. From the roots of this tree I have dug up the sprouts or suckers and transplanted them, for the sake of continuing the variety, and they now constitute the best part of my orchard. I have always been taught by tradition that sprouts were excrescences; short-lived, and not worth transplanting; but why should not a sprout be as promising as the scion grafted into the tree? If the roots of the suckers derive from the earth the nourishment the scion does from the stock, why should it not prove as good a tree? Let experience answer the question. If we must be tied down to tradition and theories, we must remain in the dark till doomsday.

Till within a few years there was no branch of farming less understood or worse managed than fruit-raising. In the country, since I can remember, when a man had planted his orchard he supposed his work was done, and if he was so fortunate as to prevent his own or his neighbor's cattle from spoiling his trees, he was a lucky man. The idea of mulching, manuring, or cultivating an orchard for the benefit of the fruit, was hardly thought of, and unless to get some other crop was seldom resorted to. Under that system of management, where the soil was suitable, crops of inferior apples were obtained, occasionally, for a few years, and premature decay followed, as a dispensation of Providence for the sin of ignorance. But as time progressed, the farmers in the neighborhood of cities grafted their trees and cultivated their orchards, and the example, like other fashions, began to extend into the country, till good winter apples, as well as other varieties, are now introduced almost universally.

For more than half a century I have been making observations upon the progress of my own and neighbors' fruit trees in different towns and on different kinds of soil. Those of us who have been at the expense of transferring trees from the richest nurseries, on account of their beauty and rapid growth, and planting them in a different kind of soil, have sometimes been so unfortunate as to see their fine trees perish, either by winter killing, bark-bursting, or blight. Within the last 35 years my neighbors, at different times, have selected the most thrifty and beautiful trees from rich nurseries and transplanted them upon inferior soil, and have seen an utter failure in their expectations of a fine orchard, in almost every instance, apple trees, pear and cherry trees taken from rich nurseries and transplanted in this vicinity, have disappeared from the land, save a few half-dead, stunted apple trees.

I think we have been persuaded into an erroneous course in regard to selecting our nursery trees. We are generally advised to select the most thrifty, vigorous, and of course the most beautiful trees to form our orchards. After experimenting, I have uniformly found those apple trees succeed best which were "illegitimate," if I may use the expression, or those that accidentally sprung up in my own fields or pasture grounds, which being transplanted, have made the most hardy and productive trees on my farm. I have not known a tree of them to bark-burst or winter-kill, while those from the nurseries have had all diseases incident to fruit trees. Forced growth is premature decay and death.

The past fall, from some cause or causes, our apples and pears were uncommonly large and free from scars and worm-holes, which circumstance goes to confirm ideas previously entertained in regard to fruit-raising. In the first place, the great abundance of rain was sufficient to supply the thirsty grass with moisture and allow the roots of the trees a grudging pittance which it could not imbibe itself. The custom of seeding down orchards to grass is a bad one; a crop of apples fit for market, will not grow for any length of time in an orchard that annually produces a crop of hay. Let him who doubts this assertion, examine in summer, the ground under his fruit trees, which has been fed down by cattle or produced a crop of hay, and he will be convinced that there is no economy in his attempt to produce a double crop. On land suitable for an orchard, if the site is sloping, especially, he will generally find by penetrating through the surface of the closely-compacted grass-roots, from six inches to two or three feet of soil as dry as ashes. This explains the reason why apple crops on grass lands depreciate from year to year, and how they stand in need of their share of the rain that falls. Another cause of fair fruit may have been the feeding of the windfalls in previous years to cattle and pigs; but I consider the main cause of our fair fruit, was manuring and preventing the grass from molesting and robbing the trees of their share of nutriment.—S. Brown, *in Boston Cultivator.*

How to Increase the Size of Fruit.

Professor Dubreuil, in an article in the *Journal del' Academie d' Horticulture de Gand*, points out some of the principal operations whereby the size of fruits may be increased:

1. Grafting the trees on a weak species of stock —for instance, the pear on the quince.

2. Pruning so as to deprive the tree of a certain portion of its shoots. By this means the sap which would have been absorbed by the parts cut off, goes to increase the size of fruit. Summer pruning, which has for its object the removal of a large number of shoots by disbudding and pinching, has the same effect.

3. Let the bearing shoot be as short as possible, and in immediate connection with the main branches. Fruit growing on the stem is always larger than that situated at the extremetics of long, slender branches.

4. Thinning out the fruit when too numerous.

5. Shortening the principal branches, at the winter pruning; and checking in the summer, the vigorous shoots.

6. Supporting the fruits so that their weight may not become a strain upon the footstalk.

7. Moderating the amount of evaporation from the fruit. Fruits covered by leaves are larger than those on the same tree not shaded. It is necessary, however, in order that shading may not effect the quality of the fruit, to expose it when full grown to the direct action of the sun. To diminished evaporation must be attributed the considerable increase of size which always takes place in fruit introduced into bottles soon after it is set. The mouth of the bottle being closed after the portion of the branch from the dry action of the air, and is constantly surrounded with the most warm atmosphere, which keeps the epidermis pliable, and stimulates the growth of the tissues.

8. Moistening the fruit with solution of sulphate of iron (copperas.) One of Prof. D's pupils, by moistening an Easter Beurre pear, from the time it was fairly set, once a fortnight, obtained a fruit so large that it could scarcely be recognized.

9. Ringing the shoot or branch immediately below the flowers. This should be done when the flowers are opening; the longer it is delayed after this period, the less is the effect produced.—

The incission should penetrate to the wood, and the ring of bark removed should have a width equal to half the diameter of the shoot. The width, however, should not exceed one-fifth of an inch, otherwise the wood will not close up.

10. Inserting on vigorous trees fruit buds, with a portion of wood attached. A tree which in consequence of excessive vigor has never produced blossom buds, may by this means be made to produce fruit of large size, from the abundant supply of sap which the inserted blossom buds will receive. But it will be necessary to pinch the shoots of the tree in summer, which would otherwise absorb the larger portion of sap, to the injury of the fruit.

IMPORTANCE OF FRUIT CONVENTIONS.

Nothing is more conducive to the benefit of fruit growers than the relation of the practical experience in a full convention of professional and amateur horticulturists, whose methods and opinions are given in discussing the merits of various fruits. Conventions of this kind have been more productive of good to the fruit-growing public than through any other means.

Michigan, although one of the best adapted to fruit culture in the Union, has never yet established a State Horticultural Society, and is therefore obliged to depend entirely upon her sister States for the valuable information derived from the discussions at annual meetings.

We give below extracts from the proceedings of the Illinois State Horticultural Society, (some of which we have heretofore published) at its session held in December last, which appeared in the *Prairie Farmer*, and are very interesting:

PEACHES—PLANTING AND CULTURE.

Dr. Hull gave the following list of peaches (in order of ripening) which he would recommend for planting in the vicinity of Alton, for market and family use:

1. Serrate Early York.
2. Haine's Early Red.
3. Large Early York and Early Crawford.
4. Bergen's Yellow and Old Mixon Free.
5. George the Fourth and Late Crawford.
6. Late Admirable and Columbia.
7. Smock.
8. Heath Cling.

Where two are mentioned, they ripen at the same time.

Mr. Flagg moved to add Hale's Early for trial. It was highly recommended by other members who had fruited it, as ripening from eight to ten earlier than Serrate Early York, and ripens earliest on older trees.

Planting and Culture.—Hull gave as his reason for planting three or four inches deeper than in the nursery—that it gave a better chance to get at and destroy the borer before it reached the roots of the tree.

Colman objected entirely the planting deeper than in the nursery.

Dr. Andrews, Winnebago county, advocated deep planting of roots, away from the severe sun, in the peculiar soil of that region.

Hadley—Had planted four thousand trees, losing but about fifty; plants as near nursery depth as possible; turns the same side to the sun as in the nursery; have grown well, are thrifty and yield well. Would subsoil the land for peaches, and underdrain when possible.

B. Smith, Mo.—Set six hundred trees; subsoiled the land both ways—one way in the fall, the next spring the other way, sixteen inches deep; set trees shallow, almost on the top of the ground, and drew the earth up about them; have never seen better growth.

PEARS—BLIGHT AND CULTURE.

Dr. Long had been appointed to prepare an essay on "Pear Blight." He stated that he had no theory or facts relating to the cause or cure of this disastrous disease to the Pear, and would give his experience as he had observed it his grounds.—His trees were purchased in New York State, set in 1857, from which time his experience dates—part standards, part dwarfs, two to five of a kind. The following is his statement:

Dr. Long's experience with Blight and Varieties.

Seckel, hardy and prolific.

Oswego Buerre, fire blighted the fifth year; would recommend it for further trial.

Buerre Bosc, all dead the second year with blight.

Urbaniste, commenced to blight the second year, not badly.

Steven's Genesee, blighted the fourth year; tree tender.

Tyson, blighted the third year; recommends further trial—fruit fine.

Colmar Van Mons, all killed the second year.

Belle Lucrative, killed in the fifth and sixth season; fruit large and fine; commenced bearing second year.

Rousselet de Stuttgart, an excellent pear, blighted the sixth year—not badly.

Beau Present d' Artois, a fine pear, rather large; commenced to blight the fifth year and nearly killed the sixth.

Chaptal, a fine grower and pear, perfectly free from blight until the sixth season, in which it has been killed from top to bottom.

St. Andre, Fig. Forelle, Buffum, Rostiezer, all growing upon a poor gravelly point, and bear well every year; the fruit rather small.

Buerre d'Amanles, commenced blighting the second year.

Buerre d'Angou, badly blighted the sixth year.

Buerre Diel, fruit very large, commenced to blight the fifth year, and was killed outright the sixth year.

Henry the Fourth, hardy and good bearer.

Swan's Orange, entirely killed the fourth year.

Flemish Beauty, highly cultivated standards, killed the second year; dwarfs the fourth; one standard upon an uncultivated spot is perfectly sound, and bears every year.

Duchess de Angouleme, hardy on poor soils; a great deal injured by blight on well cultivated ground.

Vicar of Winkfield, all destroyed by blight on the third and fourth year.

Louis Bonne d' Jersey, somewhat blighted; but think it a profitable pear.

Buerre Superfin, a little blighted; would recommend it for general cultivation.

Howell, hardy, promised well.

Passe Colmar, fruit fine and tree hardy.

Lawrence, tree hardy, fruit small and inferior.

Bartlett, profitable; trees more or less attacked by blight every season, exempt on uncultivated grounds.

Winter Nellis, dwarfs, bear young; hardy, profitable; standards not yet fruited.

Kingsessing, hardy; do not think much of the fruit.

Napoleon, hardy; bids fair for cultivation; fruit sells well.

Madeline, hardy and profitable.

White Doyenne, bears well; subject to what is called the "frozen sap blight;" I prefer to call it dry mortification; sometimes fire-blighted and killed from top to root in a few days; but thus far it has paid well.

Doyenne d'Ete, produces well and is hardy in uncultivated ground; blights when young on rich cultivated lands.

Doyenne Gobauld, same as last, not a good market fruit.

Gray Doyenne, hardy, makes fine pickles; not very productive.

Triomph d' Jodoigne, tree hardy; not fruited.

Buerre Clairgeau, hardy; fruit very large on dwarf, medium on standards.
Pound, blighted third year.
Buerre Gifford, blighted third year.
St. Ghislain, hardy, bids fair to be a profitable pear.
Princess St. Germain, killed the second year.
Urbaniste, standard; killed the second year.
Buerre Langelier, promises well.
Paradise d'Automne, hardy, very fine.
Buerre Gris d'Hiver, killed the second year.
Catillac, hardy, not fruited.
Sheldon, hardy, b ears well; fruit not handsome.
Grey Doyenne, standard, killed third year.
Ott, a good pear, trees healthy.
Bloodgood, trees good deal blighted.

Discussion on Blight.

The discussion took a very wide range, and for the most part was theories and speculation of what caused the blight, the detail of which we do not deem of sufficient value to the reader to give it room.

Coleman believed the blight inherent in the pear, and the only remedy, to cut back with unsparing hand;—does not believe that planting on thin soil will prevent it.

Hussman, of Missouri, has succeeded well with the pear—is a favorite fruit. Has noticed that whenever there is a moist and warm autumn, the trees making late growth the blight is more certain to appear the following year. On high ridges where the soil is thin but lose, not very rich, blight seldom seen. Believed many of us are killing our pear trees by kindness, giving them too high cultivation or too late cultivation. Believe as a rule, if the wood is well ripened in the fall, there will be but little blight the succeeding year. The benefit of root pruning would be to stop growth and ripen the wood earlier.

Dr. Clagett, of St. Louis, here followed with the description of a plan adopted by Mr Pettingill, of Bunker Hill, Ills., that of stripping the tree of its outer bark [epidrimis] the moment it appears on the tree—care being taken not to injure the inner bark:—discovered by cutting into the outer bark it was dead and dry, and succeeded in saving trees by thus removing this outer bark when the inner was not injured. Mr. Claggett promised to write out his ideas and practices more fully for the transactions.

Mr. Johnson, of Adams Co., has scraped off the outer bark where blight had appeared, and washed the tree with a mixture of turpentine and lampblack; they have since done well, and been healthy; it was applied soon as the blight appeared.

Douglas, of Waukegan—Believes the blight a disease of the circulation. In the spring examine my trees by cutting the limb; where we find the new wood discolored we fear blight, but much depends upon the season. If the season is favorable to growth and genial, it throws it off, otherwise the blight does much injury. Trees over fed or in any way producing late growth are more likely to be affected; rapid growers more likely to be affected. Seckel and Buffum least affected with me.

Bryant, of Princeton—Have had twenty years experienced with pears; has made no decision as to cause or cure; has never found the culture profitable.

Galusha, of Libson—Would sow oats to check the late growth of the pear.

THE BLACKBERRY.

N. J. Coleman, of St. Louis, read an essay on the blackberry, which was highly commended by those familiar with its cultivation. His method is to plant in rows eight feet apart, the plants two feet in the rows. The shoots are kept cut back to the desirable height, say about four feet, and all intermediate growth between rows is kept down by culture. All new shoots are kept cut down except those designed for fruiting the next season. We shall give the essay a place in the *Farmer* during the winter.

FOREST TREES.

Dr, B. F. Long gave some statements regarding the growth of Chestnut and Walnut trees on his grounds. Chestnut trees set in 1854, trees one year from seed, measured in circumference one foot from the ground, as follows: This fall, one 2 feet 1½ inches, one 1 foot 9¼ inches; one 2 feet ½ inch; one 1 foot 7 inches; one 2 feet 2¼ inches; standing on dry stiff clay ridge. Some of the trees bore fruit the fourth year from setting. White Walnut trees, 10 years old, 1 foot 11 inches, 1 foot 10 inches, 1 foot 2 inches in circumference. Would plant walnuts in nursery, and transplant the spring or fall following, cutting off the tap root.

ESSAY ON WINE.

Geo Hussman, of Herman, Mo., read an essay on the method of manufacturing American wines, giving the classification of wines and the kinds of grapes used in their manufacture. He describes the process as very simple, requiring only good grapes, carefully gathered, clean implements, and a cool cellar, in order to make the best of wine. He prefers Norton's Virginia for a red wine it sells the highest. Concord grapes mixed with Norton's Virginia make a very superior wine, perhaps better than either one alone. The Clinton grape makes a good claret wine; the Delaware a good sweet wine; could not discard the Catawba by any means.

GRAPES—VARIETIES AND PROPAGATION.

Delaware—Hussman considered this question local, and would confine himself to his own location. Has seen the Delaware in some fifty localities. With me has not come up to expectations, rather slow grower, subject to leaf blight—have found it to succeed best when grafted an other vines, best on Norton's Virginia vines. The best Delaware's seen, were grafted by a neighbor on Catawba.

Dr. Shroeder gave his practice as we have before reported it, illustrating by sample of vines which he had with him.

Considerable discussion followed on the Delaware grape in the usual strain, pro and con. Probably no grape that has shown so little results in fruit, still has so strong a hold on the people.

Concord—Was discussed, and seemed to be gaining strength among the people as a profitable grape to grow.

Catawba—This old grape came in as usual for decapitation but it was no go, until some grape is found to take its place.

Diana.—This grape come up again for placing on the list for general cultivation, and after a pretty full discussion was so placed by a vote of the Society.

Mead's Seedling.—Was subsequently brought up and its history given by J. M. Pettingill, of Bunker Hill. Its near resemblance to the Catawba has led to much controversy concerning it. The question was by no means settled by the discussion. Mr. P., will distribute some vines to members of the Society who will endeavor to have the question settled. If as stated it has all the good qualities of the Catawba, ripening earlier, and free from rot or mildew it will be a great acquisition.

STRAWBERRIES.

The discussion was largely participated in by the members present, detailing the varieties grown, modes of culture, &c. The general tenor of which was that ground should be well manured and very deeply prepared. The best results had been attained where the plants were cultivated in stools and all runners kept off, and plants of the Wilson's Albany thus grown will yield fruit one year longer than by letting them run together.

The results of a weeks observations by Dr. Warder, in the grounds of Mr. Knox, of Pittsburg, were most interesting, where he tested the matter of superior fruiting when thus cultivated. A much larger per cent of the bloom producing fruit than when left to themselves. But few of the famous new berries of the East have been grown, and not enough to bring out any facts of importance concerning them in the West.

The subject of marketing was discussed, and the importance of sending fruit to market in good order was acceded to by all, it will always bring enough more to pay all extra cost. The square quart box in crates is without doubt the best way to market table fruit, all others should be canned at home or otherwise disposed of, rather than send to a distant market.

The importance of a good mulch in winter was impressed on all by the speakers.

PLUMS.

Dr. E. S. Hull, of Alton, gave his experience in plum culture, and the battle with insects. He finds three varieties of curculio's attacking his fruit, and the May bug his foliage. The former he catches with his curculio machine, and the latter he treats to a shower of soap suds and tobacco juice. The machine he uses to catch the curculio, is a kind of hand barrow, with wheel three or four feet high, a canvas top arranged on arms so as to incline from all points to the part nearest the person using it. That part over the wheel is split open to enable the frame of the barrow to come up to the tree, when the canvass extends on all sides of the tree. The forward end of the former is provided with a bumper stuffed with hair or moss, and covered with leather. When used the barrow is run up against the stump of the tree, the little turk doubles himself up and drops to seek the ground, and finds himself trapped;

List of Plums.—The Dr. recommends the following list of plums named in their succession of ripening, for market and family use.

For Market.—Lawrence's Favorite; Diamond, worthless for eating, good cooking, wants high cultivation; Jefferson, delicious, very large; Imperial Gage; Pond's Seedling.

For Family Use.—Morocco, Lawrence Favorite, Washington, Columbia, Diamond, Imperial Gage, Smith's Orleans, Coe's Golden Drop, Pond's Seedling, St. Catherine, Blue Imperatrice.

Would go to woods and take up the wild stocks to graft on.

CHERRIES.

Dr. Hull was called for on this subject, and gave the following items:—Early May—Good for this (Alton) location. Governor Wood—Very nice cherry, well adapted to his location; tender for carrying to market; good annual bearer. Black Tartarian—Hardy and prolific. Bigerreau (of Downing)—Excellent. May Duke—Would recommend for family use, hardy. Gridly—One of my favorites, a great acquisition; will hang a long time on the trees; good to market; tree hardy; quality, quite good. Blackheart—Like it for flavor. All will do well on prairie under proper treatment. Foliage must be kept healthy. Cultivate long to keep growing; plant twenty feet apart, have root pruned, think favoradly of it. Graft on Mahaleb stocks imported, grown from seed. Trim up high enough to work horses under them.

Snedeker, Jersey Co., has partially succeeded with cherries the Early May does well; planted sweet kinds among other trees for protection, had succeeded well, has protected by boards nailed to S. W. side of the trunks; has had no splitting of trees.

Graft your Natural Fruit Trees.

To improve the orchard of natural fruit, it must first be pruned, by sawing or cutting off smoothly, with an axe, near the upper part of the main trunk, during winter, most of the large branches. A portion of the smaller branches which are left, may then be grafted with the desired varities, or the young and vigorous shoots which will spring up the following season may be budded. The wounds made by the removal of the large limbs should be covered with a warm mixture of tar and brick dust. When the shoots from the grafts or buds have grown a year or two, the remaining needless branches may be taken off. To form handsome and convenient trees, the heading down should be done as near as possible to the upper extremity of the main-trunk, and from this point the new shoots will mainly issue, and form a much neater tree than if the old branches themselves are trimmed to bare poles, as is too frequently the case. Old trees are destitute of young branches at the desired central point, and hence grafts are often set far out on the side branches, which can never form good tops; to obviate which, prune them in, and wait one season, and there will be an abundance of central shoots, which may be either budded or grafted. In setting out a young orchard, unless the soil is naturally fertile, it should be made so by manure in the cultivation of crops, either before the trees are transplanted, or immediately afterward. Very large holes, several feet in diameter, should be dug, and filled with well rotted manure a third part, and good soil two-thirds. This compost should be mixed thoroughly, and the result will be a splendid growth of early bearing and fine fruit, and the cost of the extra large hole will be repaid twenty times. In setting out, spread out with the fingers carefully the fine, fibrous roots, and when the hole is nearly full, settle the earth through all the interstices of the roots by pouring in a few quarts of water. Tie the tree to a stake by a wisp of straw, to prevent whipping about by the wind. Many trees are stunted in growth by being allowed to work right and left, till they make a large hole in the ground, which finally produces disease and death. Let the soil be well cultivated with a hoed crop for several years, potatoes, beans, carrots or rutabagas. Corn will not answer, as it shades the trees too much.

RULES FOR PLANTING TREES.

1. If the roots of a tree are *frozen out* of the ground and thawed again in contact with the air, the tree is killed.

2. If the frozen roots are well buried, filling all the cavities before thawing any at all, the tree is uninjured.

3. Manure should never be placed in contact with the roots of a tree, in setting it out, but old finely pulverized earthy compost answers well.

4. Trees should always be set about as they stood before digging up

5. A small or moderate sized tree at the transplanting will usually be a large, bearing tree, sooner than a larger tree, set at the same time, and which is checked necessarilyin growth by removal.

6. Constant, clean and mellow cultivation is absolutely necessary at all times for the successful growth of the peach tree; it is as necessary for a young plum tree, but not quite so much for an old one; it is nearly as essential for a young apple tree, but much less so for an old orchard; and still less necessary for a middle aged cherry tree.

7. To guard against mice in winter with perfect success, make a small, compact, smooth earthy mound, nearly a foot high, around the stem of each orchard tree.

8. Warm valleys, with a rich soil, are more liable to cause destruction trees or their crops by cold, than moderate hills of more exposure, and with less fertile soil—the cold air settling at the bottom of valleys during the sharpest frosts, and the rich soil making the trees grow to late in autumn, without ripening and hardening their wood.

9. The roots of a tree extend nearly as far on each side as the height of a tree; and hence to dig it up by cutting a circle with a spade half a foot in diameter, cuts off more than nine-tenths of the roots; and to spade a little circle about a young tree not one quarter as far as the roots extend, and call it cultivation, is like Falstaff's men claiming spurs and shirt collars for a complete suit.

10. Watering a tree in dry weather affords but temporary relief, and often does more harm than good, by crusting the surface. Keeping the surface mellow is much more valuable and important—or if this cannot be done mulch well. If watering is ever done from necessity, remove the top earth, pour in the water, and then replace the earth, then mulch, or keep the surface very mellow.

11. Shriveled trees may be made plump before planting, by covering the tops and all with earth for several days.

12. Watering trees before they expand their leaves should not be done by pouring water at the roots, but by keeping the bark of the stem and branches frequently or constantly moist. Trees in leaf and in rapid growth may be watered at the roots if done properly.

13. Young trees may be manured to great advantage by spreading manure over the roots as far as they extend, or over a circle whose radius is equal to the height of the tree in autumn or early winter, and spading this manure in, in spring.

14. Never set young trees in a grass field, or among wheat, or other sowed grain. Clover is still worse, as the roots go deep, and rob the tree roots. The whole surface should be clean and mellow; or if any crops are suffered, they should be potatoes, carrots, turnips, or other low, hoed crops.

☞ Hovey's *Magasine* holds that Roger's grapes are not hybrids, but "improved varieties."

CULTURE OF SWEET POTATOES

At the North, and the Mode of Preserving them thro' the Winter.

By J. C. Thompson, Tompkinsville, (Staten Island,) N. Y.

It is not known how far north sweet potatoes can be raised, but it is probable that on a sandy soil and with a southern exposure they may be successfully grown in portions of Vermont and New Hampshire, or even in Maine. Attempts to raise them have often been defeated by excessive care in preparing the ground, or in not knowing how to preserve them after they are dug. When they are planted in too deep a soil, the tuber runs down too deep and becomes watery and insipid.

PLANTS OR SLIPS.

About the first of April—a little later, perhaps, in locations north of New York—put the potatoes in a hot bed. If they are large, split them lengthwise, laying the flat side down. They may be placed so near as almost to touch each other; then cover about two inches deep with a light rich compost made of fine sand, manure, and good soil or leaf-mould from the woods. When the sprouts push above the ground add an inch more of the compost. Water occasionally with warm water; keep the bed warm at night, and on fine days give them air and sunshine to render them hardy. When ready to set, the sprouts may be pulled off, or the potato may be lifted out and the best plants selected and the potato be returned to the hot-bed. A bushel of seed will produce from three to five thousand plants, and every thousand plants which are set should produce forty bushels of potatoes.

PLANTING THE GROUND.

A warm, sandy loam is best adapted to the culture. Mark spaces three feet apart, merely scratching the ground, for the rows, which should run north and south. On the marks spread barnyard manure with a fork; then turn up the earth with a plow from each side toward the manure, and form a ridge about ten inches high, and finish the ridge with a rake. The base of the ridge, which should be a foot in width, should not be disturbed by the plow. The top of the ridge when finished should be flat and three or four inches in width.

Plants should be set as soon all danger from frost is past. I have obtained fair sized potatoes when planted the 1st day of July, but I do not advise the planting.

PLANTING ON SOD.

Sweet potatoes will grow more chubby when planted on sod than when planted in any other way. Strips of sod eight or ten inches wide can be laid in line on the surface of the ground with the grass side up, manure strewed on them, and the earth turned up on each side so as to form a ridge, as directed above; or a piece of pasture or meadow may be selected, and the turf used as the base of the ridge to be formed by the plow. In either case manure or rich compost should be used; for, unlike Irish potatoes, these are not injured, but are greatly benefited by manure.

SETTING THE PLANTS.

A marker should be used to prick off the spaces for the plants, sixteen inches apart. A boy is then able to drop the plants in the right places, and the hole is made for setting them. The plant should then be put in the ground down to the first leaf, and the earth pressed gently around it. Care should be taken to set the plants when the ground is moist, and, if possible, on a cloudy day.

AFTER TREATMENT.

Keep the weeds subdued. Use a hoe or a rake, raking upward toward the plants. Where the plants run down the ridges, lift and lay them on the top. Do this several times during the season, in order to permit the sun to act upon the ground.

GATHERING AND PRESERVING.

For early use feel in the ridges, and nip from the stem those that are fit for use, leaving the others to grow. For winter use, after the first frost select a dry, clear day. Cut the vines with a scythe, leaving the stem to which the potatoes are attached three or four inches long to lift them by. The vines are readily eaten by cattle. Use a fork for raising the potatoes; lift them by the stem, and lay them on the ridge to dry. In a few hours they will be ready to pack. Prepare plenty of dry, cut straw, (old straw is preferable,) and take straw and barrels or boxes to the field. Select the best potatoes, handling them carefully, without bruising them. Put a layer of straw at the bottom of the barrel, and then alternate layers of potatoes and straw until it is filled. The potatoes should be placed close to each other, one at a time, and handled as carefully as eggs. The barrels are then to be moved to a dry room or cellar, where there will be no frost. If they are placed in a cellar they must be raised from the floor, and must not touch the wall. *Keeping warm and dry* is the secret of their preservation. They will keep six or eight months and improve in quality. From one plot of ground 39 by 100 feet I gathered, in October last, 43½ bushels.

J. M. Thorburn & Co., 1864.—We have received from these old and reliable seedsmen, their descriptive catalogue of Vegetable and Agricultural Seeds. Aside from being a catalogue, it is a complete hand book of cultivation for the garden, giving the soil, best kinds, time to sow, and characteristics of seeds and modes of treatment of the vegetating plant, forming as a whole a useful book. Address, New York City.

E. Durand, of Philadelphia, denies that the American Tea Plant is similar to that of China, and it is known as Jersey tea being found plentifully in the woods of that locality.

Tanning Skins with the Wool or Hair on.

First wash the skin in strong soap-suds, to remove the grease and dirt from the wool, then rinse in clean cold water. The skin should now be tacked upon a board (with the flesh side out) and stretched, its edges trimmed, and the whole fleshy part scraped off with a blunt knife. It is now rubbed over hard with as much chalk as it will absorb, or until the chalk falls down in powder Now take the skin down, fill it with finely ground alum, wrap it closely together, and keep it in a dry place for two or three days; at the end of that time unfold it, shake out the alum, and it will be ready for use, after being again stretched and dried in the air. This method is for white sheepskins for door-mats. Another mode of treating them consists in applying a strong solution of alum, moderately warm, with a sponge, to the flesh side of the skin, when it is stretched, then allowing it to dry before the chalk is rubbed in. It must always be dried in the open air, or it will turn very hard. Another mode of tanning skins with the hair on, after they are stretched on the frame and scraped, is to apply a warm decoction of sumac in a gallon of water for about five minutes. The sumac liquor is applied with a sponge to the whole fleshy surface, then the skin is dried in the open air. Three applications of the sumac are given, and when the skin is dried it is laid on a smooth board or table, and rubbed down with pumice stone. Both alum and sumac combine with the gelatine of the skin, and form leather.

Breaking Oxen.

One of our Agricultural contemporaries recommends the following method for "handling steers:"

"When you first put a yoke on your two-years old steers coax them with an apple or an ear of soft corn, [soft corn is allowable in this case.] Then they will hold up their heads and be glad to follow you. No whip will be needed at the first yoking Let the yoke and the soft corn be associated in their mind, and they will never be shy of the yoke; but if you make use of force alone, they will hold down their heads to keep them out of the way of blows. After you have taught them to follow you around in the yoke, and that it will not injure them to carry it, you can hitch them on before the older oxen, and make them take the lead. The driver should go beside them occasionally, with a switch stick or a light and short whip, but he will not have any need to beat them, except in extreme cases."

Treatment of Cows in Winter.—A writer in the Philadelphia Culturist makes the following comparison in regard to keeping cows in winter:—I have seen a cow standing in a fence corner, exposed to the cold rains and driving snows, or bleak winds of winter, her feet drawn to the circumference of a large dish, her fodder trodden udder foot and wasted, compelled to endure thirst and hunger. On the approach of spring, her strength nearly gone, she is in ill condition to produce a calf, and still more unable to feed it properly. She drags out a miserable existence, producing no profit to her owner, and whatever care is bestowed upon her then, is all taken up in restoring the system to its natural condition. And now let us look at a different picture. We will take a cow having ample shedding for her protection from storms, with a suitable place to eat her fodder, and a dry surface to lie upon; and where, having eaten her allowance, she can stretch herself and chew her cud in the sunshine. She is the picture of contentment, and is suggestive to her owner not only of future profit but of present comfort, which ought to gladden his heart.

How to Cut Glass with Iron.—Draw with a pencil on paper any pattern to which you would have the glass conform; place the pattern under the glass, holding both together in the left hand—for the glass must not rest on any plain surface—then take a common spike or some similar piece of iron, heat the point of it to redness, and apply it to the edge of the glass; draw the iron slowly forward, and the edge of the glass will immediately crack; continue moving the iron slowly over the glass, tracing the pattern, and the glass follow at the distance of about half an inch in every direction, according to the motion of the iron. It may sometimes be found requisite, however, especially in forming corners, to apply a wet finger to the opposite side of the glass. Tumblers or other glasses may be cut or divided very tastefully, by similar means. The iron must be re-heated as the crevice in the glass ceases to follow.—*Scientific American*

Prompt Work.

On the 24th day of December, 1863, one side of my Blacksmith Shop in Saginaw was burned by other buildings burning near it. I was insured by the Michigan Michigan Home Company, at Oxford, Mich I called apprisers to apprize the damage, and before my notice of the loss was received at the Office of said Company the Secretary learned that I had met with a loss, and at once set S. W. Elwell, one of their agents to settle the same and pay me my money which he did to my entire satisfaction which will be seen by the following receipt:

Saginaw City, January 4th, 1864.

Received of the Michigan Home Insurance Company, of Oxford, Michigan, per hand of S. W. Elwell, Agent, One hundred and twenty dollars, being in full payment and satisfaction of my claim for loss or damage by fire and lightning, assured unto me by said Company, in their policy number 177 and of all demands whatsoever against them to this date.

M. W. HOLLISTER.

Such promptness as this to adjust losses will commend the Company to a public who have long enough paid their money to, and been swindled by eastern bogus Insurance Companies.

Winter flowering Fuschias.

There are few flowers more acceptable during the winter months than a good Fuschia, whether for the bouquet or for greenhouse decoration, they are equally good.

With heat the old Speciosa, Diadem de Flore and Duchess of Lancaster will flower splendidly all winter. Select either young thrifty plants in the fall, or if old ones, such as appear to be making thrifty young wood, and repot into a size or two larger pot, give them a temperature of 50° by night and 60° by day and they will soon reward your care by an abundance of blossom. After they have been potted some time, if not convenient to repot again, give a little manure water occasionally.

Cuttings struck now of the above kinds will make fine flowering plants, in 4 inch pots, early in the spring, say April and May; while the other kinds will not usually flower much until May and even June. No better kinds than these for florists to grow for early spring sales.—E. S.

"The New York Evening Post."—This able, old and reliable journal is now in the sixty-second year of its prosperity and usefulness. It is one of the largest sheets in the country. It aims chiefly at being a Good Newspaper. In its columns will be found a complete History of the War, all important Political or State Documents entire, Proceedings of Legislative bodies, Summaries of European Intelligence, and news from all parts of the world, accurate reports of financial and commercial matters, trustworthy Correspondence, and a carefully selected Literary Miscellany, comprising Poetry, Reviews of New Works, with liberal extracts, Tales, Gossip, and Anecdotes—the whole forming an excellent variety in which every reader will discover something to his taste.

Terms—Daily $11,00 per year; Semi-Weekly $10,00; Weekly $2,00. Wm. C. Bryant & Co., Publishers.

Antipodal.—In Australia it is summer in January and winter in July. It is noon there when it is midnight in Europe. The longest days is in December. The heat comes from the North, the cold from the South, and it is hottest on the mountain tops. The swans are black, the eagles

are white; the bees do not sting, the birds do not sing. The cherries have no stones; the trees give no shadow, for their leaves turn edgeways to the sun, and some of its quadrupeds have a beak and lay eggs.

Game Laws of Michigan.

By the laws of this State, the following animals and birds are held held to be game, and their killing is illegal and punishable between the dates mentioned:

Elk, wild buck, doe and fawn; from Jan. 15. to Sept. 1.

Wild turkey, partridge and pheasant; from Feb. 1. to Sept. 1.

Woodcock; from March 1. to July 1.

Prairie chicken, wild duck, goose and swan; from Feb. 1. to Aug. 15.

Otter and beaver; from April 1. to Oct. 1.

The game law now in force was passed at the last session of the Legislature, and establishes the penalty for each violation of its provisions at $5 fine. By the law, the person who has game in possession, is held to have killed it, and therefore dealing in it out of the legal season renders the person so doing liable to fine.

Andrus' Patent Bee Hive.

Mr. J. H. Andrus, of Almont, has invented a new patent Bee Hive, and says:—Perpetual motion at last is so nearly invented that Bees can be kept perpetually at work, increasing and laying up their rich stores of Honey through all the Spring, Summer and Fall seasons. Heretofore bees have commonly idled away the best part of the season in laying out, getting ready, and waiting to swarm, and then, perhaps, finally going off, if indeed they swarm at all. By using these hives all swarming is avoided, and two or more colonies got from old stock, early in the season, and then from two to four boxes of the choicest honey, and all with a tithe the care and trouble that it takes to have them swarm and go off.

Increased attention is being given annually to the care and cultivation of bees; and it would seem to beone of the most profitable pursuits at the prices which are now obtained for honey. With properly constructed hives, the insects will work year after year, and produce their much esteemed luxury, and they only require propagating in sufficient numbers, and have unlimited food, to be the source of handsome income. This Bee-hive is well arranged, and is remarkable for the simplicity of its construction; and if it should be found to embrace all the advantages claimed for it by the inventor, it will certainly give a new impetus to bee culfure.

It is asserted by the inventor that, in this hive, he can propagate colonies of bees without waiting for them to swarm; this is done by affording them plenty of room to work in, when they will continue to increase and make honey without congregating periodically.

Forty years' experience with bees has taught him that the more simple their hives are, the less trouble it will be to take care of them, and the better they will do; while on the other hand, a hive full of comb frames. partitions, etc., will require an almost daily overhauling to dislodge the worms from their hiding places, and prevent the millers from destroying the whole colony, honey and all.

Large early colonies, put in good, plain hives, free from frames and other hiding places, seldom require help to expel vermin.

The hive is handy, neat, cheap and effective, and a lot of them, when suspended, present a very graceful and ornamental appearance, saying nothing about the profits.

A QUERY.

The printer's dollars! Where are they? A dollar here and a dollar there, scattered over numerous small towns, over the country—miles apart how shall they be gathered together? The type foundry has hundreds of dollars against the printer; the paper maker, the building owner, the journeyman and compositor, the grocer, tailor, and all his assistants in carrying on his business, have their demands, hardly ever so small as a single dollar. But the mites from here and there must be diligently gathered and patiently hoarded, or the wherewith to discharge the large bills will never become bulky. We imagine the printer will have to get up an address to his scattered dollars something like the following: "Dollars halves, quarters. dimes, and all manner of fractions into which ye are divided, collect yourselves and come home. *Ye are wanted!* for combinations of all sorts of men, that help the printer to become a proprietor, gather in such force, and demand with such good reason your appearance at his counter, that nothing short of a sight at you will appease them. Collect yourself, for valuable as you are in the aggregate, single you will never pay the cost of gathering. Come in here in silent single file, that the printer may form you into battallions, and send you forth again to battle for him, and to vindicate his credit."

Reader, are you sure you havn't one or two of the printer's dollars sticking about your clothes? —*Exchange.*

What are Dogs Worth?—The dogs got among the Merino of J. D. Patterson, Esq., near Rochester, N. Y., and destroyed $3,000 worth of sheep.

THE MICHIGAN FARMER.

DETROIT, FEBRUARY, 1864.

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E. WILLARD, - - - - - Ida.
CHARLES BOYNTON HOWELL, University of Michigan.

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TO POSTMASTERS,

We often receive returned papers, with merely the *name* of the subscriber upon them, and not the *town*, in such cases it is difficult to find them, as we are obliged to go over 200 pages of names. Will they please to add the name of the Post Office.

"Postmasters are responsible for the subscription of a newspaper or magazine, as long as they allow it to be received at their office, after it is uncalled for, or refused by the person to whom it is directed. The Postmaster General requires that a written note shall be sent to every publisher, that his paper of works lie dead in that office."

A TRIP TO CALIFORNIA.

The following interesting account of a passage to the "Golden State," is from our friend Mr. WILLIAM J. COLVIN, formerly of Flint, Genesee county, in this State, who with his family, we are happy to know, has arrived upon the shores of the Pacific, whose waves roll upon the modern El Dorado, and towards whose rich soil, genial climate, and golden treasures so many minds and steps are directed:

PACIFIC OCEAN, Dec. 15, 1863.

Editors Michigan Farmer,—I propose to write a short sketch of my voyage, which you may publish if you think proper.

Although I have left the State of Michigan, and probably shall never return to reside in it again, yet I have a homelike feeling towards it, and its institutions and people. Among the most beneficial of its interests is agriculture, the most staunch advocate of which is the *Michigan Farmer*. I do not know whether it will be beneficial to me in my new home, so far as raising crops and draining is concerned, but I intend to patronize it for what it has done, besides, it will keep me informed as to the progress of the State in my favorite branch of business.

I have promised to communicate my views, experience, and prospects, in this far-famed golden land, to my friends through what I call your (or our) valuable paper, as it will save me much time, and "time is money" these days. I have little of interest as yet to communicate, but still, it may be interesting to some.

I left New York November 23d, on board the steamship "Champion," Capt. Wilson commanding, who they say is a very fine man, but I could say as much for the rest of the officers and men, for I never saw a worse lot of hogs out of a pen, even in a new country, (I might as well say in a pen, for the boat was little better than a hog-pen, and but little better kept,) she should be called the "Champion" hog-pen, and would take a premium as such at the State Fair. This description may not be a classical, but yet it is a true one.

The second day the passengers began to be sick. The weather was not cold, while the sea was tolerable smooth. Wednesday 25th, the wind commenced to blow, and the waves to roll, and the boat to heave, and so did the stomachs of the passengers, and before nightfall I think full 500 were heaving up Jonah, or casting up *land* accounts and "getting on their *sea*-legs," as the sailors say. We had about 600 on board, nearly one-half women and children, and such groans and lamentations was never heard before, even in a military hospital after a battle. Friday 27th, the weather was fine and sea smooth; all on deck, except a few sick ones, who had not energy or strength enough. All our baggage was put in the baggage room when we came on board, with the promise by the ticket agent that we should have our trunks from 11 to 12 o'clock each day, yet for four days we have not been able to get any clean clothes, and the porter now says, "if any one wants their trunks, give him a dollar and he will try and get it out for them." Some have to pay $2. Steerage passengers can get into the first or second cabin for $5 or $10, according to their sex; and a great many lone women get rooms for nothing, much to the mortification of their more conscientious neighbors. The smallest accommodation here must be well paid for—for instance—a glass of ice water for a sick woman or child is 25c. or 50c.; a bit of rope to tie a broken trunk 50c and $1, and other things in proportion.

The passengers complain bitterly about the fare, and they certainly have good reasons. The food is poor at best, and badly cooked; and frequently we are hurried away from the table before we have done eating—especially those who have children to attend to. A more overbearing and tyrannical lot, from the 1st mate to the lowest hand I never saw.

Saturday 28th. Another fine day, but excessively warm. We have all washed and garnished this morning and clean clothes all around, and as we are getting in warm latitudes, we have exchanged our winter clothes for thinner garments. We all feel revivified, and I never met a more pleasant or better assemblage than the passengers of the "Champion;" their ill-usage seems to

unite them, and they all try to accommodate one another. Sunday 29th—pleasant, but warm.—We passed the island of Paraguay, and its sloping green mountains are refreshing to the sight. There is a man-of-war to the leeward, making towards us. It is our escort, and takes our mail on board. After some friendly salutations we up steam and went on with our escort in our wake; we passed in sight of Hayti on our left and Cuba on our right to-day, but do not stop at either.—Monday 30th—passed the island of Jamaica, and saw many sail vessels along the coast. The weather continues fine. Tuesday 31. This day was spent in assorting and weighing baggage trunks and boxes had gained in weight an average of 20 per cent. since leaving New York, but nothing new was found in them that I heard of, but in many instances new things had been taken out, and some had lost all their contents. However great the loss, no compensation could be got, or even satisfaction. Ten cents per pound for all baggage over 50lbs. for each adult. Thursday, Dec. 3d—all hands at breakfast at daylight, for the rocky shores of the Isthmus are in sight (10 days from New York) and hailed with the greatest delight by all the passengers, as every one had got heartily sick of their pleasure trip. About 8 o'clock we rounded up to the filthy and rickety looking wharf, and soon all was on hard bottom once more. As we wound up into what was called the main street, the first thing we heard, was "Dis way, boss—dinna fow haf dollar," and looking around we saw a group of filthy, half-naked natives of all sizes and sexes, bare-footed and bare-headed, all with something to sell. The rain was falling in torrents and the street was full of all manner of filth. There are several large shaving institutions (public houses,) but very cheaply and poorly furnished. These were soon filled with the passengers and natives, jabbering and swearing about change. Here was all kinds of tropical fruits, cakes and pies of all qualities and colors; also, liquor and cigars in abundance. Postage currency, "no goot," they say—greenbacks, sixty cents, no more. They are actually the most revolting, dirty set that I ever saw. We remained here until 3 P. M., and it seemed a long day; at length the cars came out, and all was glad to get seats and relieve themselves from the Babel of yellow-looking, half-clad horde. We soon moved out of the miserable, sunken, swampy, filthy and Christian-forsaken place called Aspinall. It was strange to see the turkey-buzzards perched in rows on nearly every house and dead tree in the town, and even in the street, and they would hardly let you pass, seeming to covet a dinner of your bones, even before deceased. The water for drinking is caught from the eaves, and the natives tho't it a great luxury.

December 3d. We arrived safely in Panama, after about three hours ride through a rough and rocky country, with an almost impenetrable growth of palms and other tropical trees and underbrush. We went direct to the small steamer that was to carry us to the large one; as the mail steamers and all other vessels of large size are obliged to anchor at some distance in the bay. We got on board safe, altho' it was very dark, and bore out into deep water about 2 o'clock in the morning. Friday 4th, all got arranged satisfactorily, and anticipate a pleasant trip. Saturday 5th, it rained and was unpleasant. The weather is rather warm for us northern people. The "Moses Taylor" is in our rear, with the passengers of the opposition line, who left New York on the 13th. They had been on the Isthmus over ten days; she has, it is said, about 1100 on board. Sunday, it is clear this morning and some cooler. Our fare is good; fresh meat of all kinds and fruit and sauce, warm bread and butter, tea and coffee, and in fact, all things that is necessary to make us comfortable. We have cattle, hogs, sheep and fowls on board for the use of the passengers.—Tuesday 8th, weather fine, and everything goes pleasantly, the "Taylor" close in our wake, having gained upon us 20 miles last night. We have the awnings up to-day which makes it pleasanter. Wednesday 9th, a young lady of our party became deranged. We are in the gulf of Tehauntepec, it is rough and we are out sight of land, altho' generally we have run near the coast, which is very rough and mountainous. The "Taylor" came up and crossed our bow last night, but has fallen behind again. We have numbers of whales spouting near us, and schools of large fish for several days. Thursday 10th, the "Taylor" passed us again last night, and is almost out of sight.—The weather is fine and sea smooth. We are quite near the land, which appears to be inhabited and is green looking and level. Friday 11th, we run into Acapulco about 12 last night, and commenced taking on coal and provisions. The bay is almost covered with canoes filled with fruit and other articles of trade, by the Mexicans, and the passengers buy freely. We left Acapulco at 11 o'clock, and steamed out through the narrow rock bound passage. We could cast a stone on either bank, and see the limes and oranges hanging upon the shrubs on the rocky shore. The day is fine and whales are rolling in abundance on the calm ocean. Monday 14th, crossed the gulf of Californa—15th passed Cape St. Lucas and the Maurgerita islands, and saw several whale-ships and small boats coasting. There seems to be no vegetation of any kind upon these islands. Saturday 17th, the weather is getting quite cool, so that we resort to woollens again, and overcoats are

quite comfortable. We are running quite near the shore, which is romantic and very beautiful, with little or no timber to be seen, but the high sloping hills looked green, but no sign of being inhabited. Sunday 19th, we entered the Bay of San Francisco about 3 in the morning, and most of the passengers were soon on shore and greeted the promised land with loud cheers, and soon scattered for the different hotels for breakfast. I remained until daylight, and then placed my patient in charge of her father, who was there to receive her. I will not attempt to describe their meeting; but I think any one would have shed tears—instead of an interesting young lady he met a raving maniac. I then got my family and baggage off and got an express wagon and went to the Oakland ferry for which I paid $1,50, about N. Y. prices. In about one hour we were landed in the forest city of Oakland and met our friends, and were duly cared for, as it becomes friends for weary and care worn travellers. To-day is the 24th, and I have had one or strolls around the city and its suburbs, and I think it one of the pleasantest places I was ever in. It is just in its infancy and is growing very fast.—There are two steam ferry boats running from San Francisco to this place, making their trips once in two hours—fare 25 cents, being worth that as a pleasure ride. I called on my old friend Surrine, who has a beautiful place at the north side of the city limits, and states that vacant land between his place and the centre of the city sells readily for $1000 per acre.

I will close by mentioning for the benefit of those who contemplate coming to this country—that I find things and the climate much changed. Colds are more prevalent, and the atmosphere is not so pure as it was in 1850; but a man can live as cheap, taking all things into consideration as he can in any place in Michigan.

Wheat is worth now a little more than $1 for shipping. Oats and Barley $1,50 per 100. Beans $1,50a2,00 do. Hay $14a18 per ton. Potatoes 75c.a$1 per 100lbs. Hams, salt pork and lard 15 a16c. Eastern butter 30c., fresh roll 45a50c.—Dressed beef 3a5c. Live poultry 30c. each, eggs 50a75c., according to supply and demand. Poultry has taken a rise during the holidays. Boarding in the city at the first c ass houses, 25 cents per meal, and 50c. for rooms without board, $2,50 at boarding-houses. Spanish horses sell from $20 to 50. American cows $45 to 55. American horses from $100 to 600. Groceries are about an average with Michigan prices. Clothing cheaper. Work is very scarce and low prices, from $1 to 2 per day. The spring will clean out the working classes, as there is a great excitement about the new mines lately discovered. I think of remaining here until spring, and intend going to farming or on the railroad and ferry running from Oakland City to San Francisco as assistant conductor for a while at $100 per month.

Yours respectfully,

WILLIAM J. COLVIN.

CULTIVATION OF TOBACCO.

As the season is near at hand for commencing to sow seed for Tobacco, we give below the method as practiced in France by which good crops are produced, and which no doubt is applicable to Michigan:—

DIRECTIONS FOR SOWING THE SEED.

Tobacco should be sown in nursery beds, and transplanted in rows in the field, in order to be able to give it the care from day to day, which it so imperiously exacts. As it is to set out in the month of May, and should at that time have acquired sufficient development to be safely transplanted, the seed must be sown in a bed having heat enough to promote its rapid development.—The work is begun so late in March as to be beyond danger from farther frosts.

A bed a rod in length and four feet eight inches wide, is large enough to produce 15,000 to 18,000 plants, for which about 7 ozs. of seed will suffice. The bed is made of horse and cow manure mixed, thus giving less heat than if of the former alone, but continuing the heat for a longer time. A warm and well sheltered position is chosen, in land rather dry than moist. The upper soil is first taken off, and if rich and of good quality, is laid aside. The excavation is then continued to the depth of 14 inches; filled with the manure fresh from the stables and mixed before putting in, and carried to such a height that when well settled it will be 14 inches in front and 18 inches at the back, above the surface of the ground. The frame is then put on, and the manure covered with say six inches of good rich earth, with that taken out at the top of the hole, which latter we suppose to be rich itself, and the sashes are then put in place.

The bed should be thus prepared during the first days of March. In the latter half of the month, the seed is sown, distributed uniformly over the surface, not buried, and simply watered with a pot having a very fine rose. The sash is replaced and scattered over with a little litter to lessen the action of the sun's heat, and every two or three days the bed is watered with water warmed in the sunshine. In eight or ten days after sowing, the young plants appear and weeds with them. As soon as they are strong enough, the bed is weeded by hand, which operation is repeated as often as necessary. Air is given to the plants as they grow larger, and they are thinned out where too thick.

PLANTING OUT.

The soil chosen, should be new, of good substance, and deep, plowed before winter sets in.—It is leveled by thorough harrowings in spring, and spread with "60,000 to 70,000 kil. per hectare" (say 25 to 30 tons per acre), of good farm-yard manure as fresh as possible, turned under to a moderate depth with a plow. A third plowing is then given, four inches deeper than the last, to keep the manure between two layers of soil.—Sometimes also a fourth plowing is given just before planting out, but this is most frequently useless.

In planting, the lines left by the last plowing may serve as a guide, or the field may be harrowed and marked off. The plants in the bed, by the first of May should have attained a height of three or four inches, with four to six leaves. The day before they are transplanted, the bed is watered so that the smaller roots may not be injured, in which one will easily succeed with a little attention, if the soil is in part composed of vegetable mould. The rows are laid off 28 to 30 inches apart, or if not marked, they may be placed at every third furrow as left at the last plowing. The plant are 24 inches apart in the rows, or, if the land is very rich, 28 inches apart.

The planting out should be done in cloudy weather, threatening rain. In the South of France, where irrigation is common, a good watering is given after planting. The plant is growing in eight or ten days, and the first cultivation is given with the horse-hoe. A fortnight later a second cultivation follows, and after a short interval farther, a slight hilling up.

While these operations go on, the young tobacco plant rapidly develops; it has reached a height of 20 to 28 inches, and has formed along its stem as many as twelve new leaves. The topping then takes place, which consists in cutting off the crown, before the appearance of the flowers, just above the eighth leaf in the North, and the tenth or twelfth in the South. This leads after some days to a shoot in the axil of each leaf, and these shoots are also pinched off like the tops, as soon as they reach a length of an inch and a half. The sap which still seeks growth, continues to push out either a new terminal shoot or more axillary shoots; and the planter, on his part, must not cease to combat this disposition to shoot, by new and severe pruning. The sap is compelled by this continual exercise of care, to take refuge in the leaves first produced, and they are thus gorged until they sometimes reach a length of over thirty inches and a foot in breadth. Plants grown for seed need neither be headed nor deprived of leaves. They had better be planted in another field.

Tillage is continued at intervals during the month of June.

TAKING IN THE CROP.

The time of harvest is shown by the yellowish tint assumed by the leaves and the penetrating odor they emit. The lowest leaves are first taken off, as soonest ripened, and forming the lowest quality. When this is done, the intermediate leaves are gathered, constituting a second quality. By this time the upper leaves have completed their maturity; they are gathered last and rank as the best in quality.

As soon as the harvest is thus terminated the stems should be cut off at the ground, which they would otherwise exhaust by suckering, and a deep plowing follows at once to bury the stems and destroy the roots.

The tobacco leaves, as they are taken to the drying house, are laid on the ground in lots of ten or twelve, with care not to mingle the different qualities. After three or four days they have lost a part of their moisture and are sufficiently wilted to be exposed to a current of air. They are then strung by means of a large needle passed through the midrib of the leaf at its base, on strong twine which is stretched upon nails or hooks in the drying house in several regular tiers. The air does the rest. The drying houses are ordinarily simple sheds open to every wind.

When drying houses are used the fire *must* be carefully attended, or the leaf will be *burned* instead of *dried*. Where extensive cultivation is carried on, the leaves may be stripped and tied up in bunches about the size of the thumb and hung across poles in the dry-house; but the bunches must not be crowded, leaving plenty of room for the heat and air to circulate among them.

We "Put Money in his Pocket."

MESSRS. EDITORS:—I find that people are generally interested in whatever affects the contents of their pocket, this to some extent is the reason why I have taken an interest in the *Farmer* at the present time, not that I make anything in obtaining subscribers, for I send you all the money I get for the *Farmer* and I intend to do so still if I get any more subscribers, and consider the paper worth the money to any farmer. But it has affected my pocket as it has many more the past year. In the surplus cash I received on the sale of my wool, small as the lot was, by heeding the suggestions of the *Farmer* in July last, I pocketed $28 in cash on 41 fleeces of wool, or a rise of 16 cents per pound. I take the *Agriculturist* and consider it a good paper, many valuable hints in it. But to the farmer in Michigan there

is nothing like the *Farmer*, and if the farming community of Michigan would become more deeply interested in our home Journal of Agriculture it would affect our pockets greatly to our satisfaction in many things. A. SUBSCRIBER.

OHIO WOOL GROWERS CONVENTION.

This convention was held on January 5th, and was highly interesting. The dog nuisance seemed to be received a most thorough *expose*, and resolusion were passed to petition Congress to amend the Internal Revenue Act so as to impose a tax upon dogs. To prepare a bill to the Legislature for protection against dogs. To form associations to put in force the statute laws "for the protection of sheep from ravages by dogs." It was estimated that $100,000 worth of sheep were annually destroyed in Ohio by dogs. Michigan has a tax on dogs, and we hope every assessor will most *dog*-gedly levy the same without fear or favor—this is most decidedly a *dog*-gerel upon a DOG-matic subject.

WASHING SHEEP.

The following resolution was offered:

Resolved, That washing is in itself injurious to sheep—and is no advantage to wool—and is only made necessary by the present custom of wool buyers, and it is highly desirable that a reform be effected.

This opened some facts, principally that those who were for it, did'nt want to wash their wool because it was important that the manufacturer should be made to pay just as much for dirt and its transportation, as for clean wool—and that the producer lost 33 1-3 per cent. in washing—which by the way we don't believe, unless the animals were rolled in a quagmire or had sand sifted into them. The majority, however, did not see things in that light, were less selfish, and had pride and resolution enough to advocate "washing"—one of the most sensible ones Mr. BELL, urged that facts prove that the producer has to pay for the cost of transporting the dirt in unwashed wool. At the per centage of loss (33 1-3) found in the best class of wool by Mr. Montgomery, the manufacturer must ship with 300,000 pounds 100,000 pounds of dirt. The cost of transportation must come off of the farmer. It is common sense, that the nearer you put an article into condition to suit the purchaser, the better it is for the seller. Clean Saxony wool has sold for a number of years twenty cents higher than other wool. One difficulty in the scale of prices is that the wool has to pass through too many hands before reaching the manufacturer.

No vote was taken on the resolution.

FEEDING SHEEP.

Mr. CUNNINGHAM, of Stark county, had not fed a great deal of grain. During the past three years he had fed both corn and oats. His own experience was that corn, given in proper quantities, is the best, as it produces the most wool and fat. To his lambs he fed oats in addition to hay and found it profitable, and did not know but that he would prefer oats to corn for young sheep. He fed a bushel of corn, ground with the cob, to 100 sheep once a day. He recommends feeding hay twice and corn once a day. Anything which will produce fat will produce wool. He had rather feed oil-meal than anything else, if he could obtain it.

ISAAC THOMAS, of Harrison county, asked if the gentleman ever experienced any disadvantage from the hard substance at the root of the grain?

Mr. CUNNINGHAM—None at all.

Mr. STEVENS, of Hardin county, had observed frequently in his sheep, that many of those the most promising at the beginning of winter, before February seemed to be running down. He concluded that they ate too much and became overheated. There were not many in his section prepared to go to the extent of housing and grinding corn. They feed the corn in the shock.

Mr. BELL's experience was against feeding the cob—it was like bran and sawdust, the less of sawdust the better. He thought corn and oats the best food. He does not grind the grain. He mixed bran with the corn, in order to prevent the sheep from eating too rapidly, in which case some of the sheep got more than their share.

Mr. THOMAS had found that by the time sheep got the grain of the stalk, the straw was run over and injured so much as to be of little account. It is better to feed grain and straw separate.

Mr. WITTER, of Medina, had been experimenting a number of years, to ascertain the different quantities of grain that it is profitable to feed sheep—ground and unground. He had concluded that to feed equal quantities of corn, oats, peas and beans, would insure the best clip of wool.—Sheep have delicate tastes. If you feed all one kind of grain, some sheep will eat too much.—Where different kinds are fed mixed, some sheep will select the corn, others the oats, and others again the peas or beans. He had found that sheep fed on peas would shear from one-half to one pound of wool more than sheep fed on any other kind of food. Peas produce more fat. He would not feed corn to lambs.

Mr. PUTNAM, of Athens county, found the principle advantage in feeding corn ground with the cob, in preventing the sheep from eating too fast. He breaks the ear into pieces, and lets them shell for themselves.

Mr. EAGLESON, of Harrison county, had fed grain, cob and all, for six or seven years. He mixed

bran and a little salt with the grain, and found no difficulty in getting all the sheep to eat. In answer to a question, he said that he thought there was nourishment in the cob.

Mr. CUNNINGHAM thought the grain should be ground, as in that way the sheep cannot eat it so rapidly, and all will take hold of it better. Yearlings cannot eat corn when fed on the cob, owing to their front teeth being loose. Therefore, the grain will be distributed most equally if ground. It is still better to feed with cut straw or chaff. They never feed corn on the stalk in Stark county.

Mr. CLARK, of Columbiana county, cut the corn into slices by means of a knife attached to a lever, similar to a tobacco cutter, and then places in troughs. He finds that it takes two or three times the usual time for them to eat it.

The discussion on feeding sheep is valuable to every farmer in Michigan, as the facts elicited are from men in Ohio whose wool and stock commands a high price; on feeding in a great measure depends the principal secret of successful Sheep Husbandry. Upon the whole, the convention was productive of good results. Cannot the great producing interests of Michigan take some steps towards the formation of a State Wool-Growers Association?—W. S. B.

THE PARSNIP.

The parsnip is one of the most valuable roots that can be grown. In the Island of Jersey it is used almost exclusively for fattening both cattle and swine. According to Le Courteur the weight of a good crop varies from thirteen to twenty-seven tons per acre. When parsnips are given to milch cows, with a little hay, in the winter season, the butter is found to be of as fine a color and excellent flavor as when the animals are feeding in the best pastures. As parsnips contain six per cent. more mucilage than carrots, the difference may be sufficient to account for the superior fattening as well as butter making quality of the parsnip. In the fattening of cattle the parsnip is found superior to the carrot, performing the business with more expedition and affording meat of exquisite and highly juicy flavor; the animals eat it with much greediness. The result of experiment has shown that not only in neat cattle but in the fattening of hogs and poultry, the animals become fat much sooner, and are more healthy than when fed with any other root or vegetable, and that, beside, the meat is more sweet and delicious. The parsnip leaves being more bulky than those of carrots, may be mown off before taking the roots, and given to oxen, cows or horses, by which they will be greedily eaten. Another thing in favor of parsnips for this country, is that the frost does not injure them. They may remain in the ground until Spring, when they make splendid feed, at a time every other kind of root is scarce, or they may be slightly buried, where they can be obtained almost any time during the winter. On account of their rapid growth when young, the weeding is less trouble than weeding carrots.

COUNTY AGRICULTURAL SOCIETIES.

Oakland County.

The annual meeting of the Oakland County Agricultural Society was held at the Court House, in Pontiac, on the second Tuesday [the 12th day] of January, A. D. 1864, at one o'clock in the afternoon, pursuant to public notice

Chauncy W. Green, Esq., the President of the Society, presided at the meeting; and the Recording Secretary, J. R. Bowman, acting as Secretary thereof.

On motion, the Treasurer, Z. B. Knight, Esq., presented his annual report which was read, accepted and placed on file The following is a condensed statement thereof.

Z. B. KNIGHT, Treasurer in acc't

With Oak. Co. Ag'l. Society, Dr.

1863.		
Jan'y 13, To bal. cash on hand,		$ 19
" 27, Rec'd of F. E. Eldred for Stalls,		2,00
Feb. 23, Amount borrowed at 7 per ct.,		150,00
Oct. 7, 8 and 9. Rec'd for membership tickets,	$1,071,00	
For single admissions,	569,20	
For Carriages,	77,50	
For children adm'd,	8,70	
For stalls,	14.00	
For licences,	50.00	$1,790,40
Total rec'pts during the year.		$1,942,59

CONTRA CR.

By paid premiums for 1862,	$38,00
" " 1863,	747,00
" orders 1862,	92,25
" " 1863,	345,82
" borrowed money and interest,	157,00
Counterfeit and altered money,	15.00
Cash on hand,	552,52
	$1,942,59

Liabilities of Society as follows:

For premiums due for 1862,	$10,50	
" " 1863,	77,50	
" salary of Treas. 2 years,	80,00	
" estimated salary of Sec'y,	75,00	
Total estimated liabilities,		$243 00

RESOURCES,

Bal. cash on hand as per above report,	$52,52	
Amount on tax roll of Oakland County for 1-40 mill tax 1862 and 1863,	472,77	$1,025,29
Net balance,		$782,29

Z. B. KNIGHT, Treasurer.

Jan'y 12th, 1864.

On motion of Z. B. Knight,

Resolved, That the sum of twenty-five dollars be added to the allowance to J. R. Bowman, for his services as Secretary for the year 1862, add to Thomas L. Boughton, for like services for said year the sum of ten dollars, and that the salary of the Secretary for the year 1863, be seventy-five dollars.

On motion of Peter Hogan,

Resolved, That we now proceed by ballot to elect a President for the ensuing year.

Resolved, That the Chair appoint two tellers. Messrs. Bela Cogshall and Theron A. Flower were appointed.

The meeting then proceeded to ballot for President with the following result:

For Chauncy W. Green,	25
For David A. Wright,	4—29

Whereupon Chauncy W. Green was declared unanimously elected.

On motion a ballot was then had for Recording and Corresponding Secretary with the following result:

For Joseph R. Bowman,	26
For T. A. Fowler,	3—29

Whereupon J. R. Bowman was declared elected.

On motion a ballot was then had for Treasurer with the following result, viz:

For Z. B. Knight, 28
For Russell Colvin, 1—29

Whereupon Z. B. Knight was declared unanimously elected.

On motion, resolved that we now proceed to elect viva voce five Vice Presidents for said Society; the following were duly elected:

Marshall S. Hadley, 1st District; George Miller, 2d District; A. B. Travis, 3d District; Morgan L. Brooks, 4th Dittrict; Theron W. Barbour, 5th District.

On motion, resolved, that we now proceed to elect viva voce five members of the Executive Committee to serve for 2 years The following persons were duly elected. viz:

Michael E. Crofoot, Pontiac; David A. Wright, Austin; Lysander Woodward, Rochester; Wm. L. Coonley, Farmington; George Bloombourgh, Royal Oak.

On motion of Peter Hogan,

Resolved, That the thanks of the Society be and they are hereby tendered to the President of this Society for the able and impartial manner in which he has discharged the duties of said office for the past year.

On motion of C. A. Carpenter,

Resolved, That the proceedings of this meeting be published in the Pontiac city papers and also in the *Michigan Farmer* at Detroit.

The meeting then odjourned *sine die*.

C. W. Green, President.

J. R. Bowman, Rec. Secretary.

Lenawee County.

We learn from the Adrian *Expositor* that the annual meeting of the Lenawee County Agricultural Society was held in that city yesterday, Feb. 5. the President, Mr. Samuel Lothrop, in the chair. Some fifty of the most prominent and influential farmers of the County were present, and a good degree of interest was manifested in the proceedings.

The report of the Treasurer was:

Total receipts	$2,249,99
Total disbursements	$2,147,34
Balance on hand	$102,65

The report of the Secretary showed the present indebtedness of the Society to be $1,750,10.

The following officers were elected for the present year:

President—Charles H. Dewey, Cambridge.

Secretary—John J. Krapp, Adrian.

Treasurer—Samuel E. Hart, Adrian.

Executive Committee—Adrian City, Benj. Folsom; Robert Bidleman; Adrian Town, Samuel Tingley; Blissfield, David Carpenter; Cambridge C. A. Blackmar; Dover, Ephraim Ramsdell; Franklin, Cyrus Wells; Fairfield, Christopher Quick; Hudson, Dexter Baldwin; Madison, Norman F. Bradish; Macon, William H. Osborne; Medina, Charles A. Jewell; Ogden, Israel S. Hodges; Palmyra, Peter Collar; Raisin, Wm. H. Cornelius; Ridgeway, Justus Lowe; Riga, J. D. McAllister; Rollin, John Tingley; Rome, Welcome Teachout; Seneca, Robert Morris; Tecumseh, Simeon Davidson; Woodstock, A. S. Smith.

The Society then adjourned.

St. Joseph County.

The 14th annual meeting of the St. Joseph County Agricultural Society, was holden at the Court House, in Centreville, on Saturday, Dec. 12th, 1855. Richard Doughtery, President of the society presiding.

The report of the Treasurer showing a balance in the treasury of $141,93, was read, accepted and adopted.

The society proceeded to the election of officers for the ensuing year, with results as follows:

President,—Henry Tracy, of Stargis.

Secretary,—L. A. Clapp, of Centreville.

Treasurer,—Edmund Stears, of

Directors,—John Lomison, Park; Thomas Bradley, Florence; Henry Yauney, Lockport; John C. McKercher, Nottawa; C. Bryant, Burr Oak.

The meeting adjourned, *sine die*.

L. A. Clapp, Secretary.

Genesee County.

The annual meeting of this flourishing Society was held in December, and an unusual interest was manifested. The outgoing executive committee, and the present Secretary, A. H. Rankin, Esq., made a very able report in regaad to field crops, live stock, and manufactures of Genesee County. The report of the Treasurer showed a good balance on hand and a very satisfactory state of the finances.

The following officers were elected for the present year:

President—Levi Walker.

Secretary—F. H. Rankin.

Treasurer—J. W. Begole.

Executive Committee—C. H. Rockwood, of Genesee; Jonathan Dayton, of Grand Blanc; Henry Schram, of Burton; E. W. Rising, of Richfield; G. W. Thayer, of Mount Morris; E. W. Jenny, of Flint City; J. K. Pierson, of Atlas.

Auditors—J. L. Gage, R. P. Aitken.

The Vice Presidents were chosen *viva voce*, viz;

In Argentine, Abraham Middlesworth; Atlas, Enos Goodrich; Burton, Absaline Babcock; Clayton, Walter Crenk; Davison, Goodenough Townsend; Fenton, Elisha Larned; City of Flint, First Ward, William Stevenson; Second Ward, John Hamilton; Third Ward, Porter Haselton; Flint, A. S. Donelson; Flushing, Henry French; Forest W. H. Otis; Gaines, J. Van Vleet; Genesee, W. B. Wetherell; Grand Blanc, Seymour Parry; Montrose, Wm. Hulburd; Mount Morris, E. B. Dewey; Mundy, Morgan Baldwin; Richfield, Garret Zufelt; Thetford, Edward Clapp; Vienna, D. N. Montague.

Washtenaw County.

The Treasurer's report exhibited a sound financial condition. A balance of over $600 was reported in the treasury, with the premium list of the fair nearly paid up as well as small debts, for premiums, etc., accruing in former years. The following officers were elected:

President—S. Botsford.

Recording Secretary—H. W. Goodrich.

Corresponding Secretary—Byron Green.

Treasurer—I. S. Pierson.

Vice Presidents—R. S. Smith, L. Foster, H. Arnold, Z. Burd, N. Sheldon.

Executive Committee—Ann Arbor City, Moses Rogers; Ann Arbor Town, George Rash; Augusta, J. W. Childs; Bridgewater, D. LeBaron; Dexter, Yates Arnold; Freedom, E. Haire; Lima, S. D. Whitaker; Lodi, L. S. Wood; Lyndon, J. K. Yocum; Manchester, Henry Goodyear; Northfield, Thomas Pittsfield, E. W. Whitmore; Salem, C. Wheeler; Saline, H. J. Miller; Scio, C. Frey; Sharon, J. J. Robinson; Superior, T. Goodspeed; Sylvan, Charles Wines; Webster, G. C. Arms; York, Thomas Gray; Ypsilanti City, A. M. Noble; Ypsilanti Town, D. M. Uhl.

Calhoun County.

The Executive Committee met at Marshall, on the 7th of December, at the Office of Mr. Charles P. Dibble. The President, Milo Soule, Esq., in the chair, and Messrs. Dibble, Brown, Hyde, McKay, and Lacey, of the Executive Committee, and Messrs Robinson and Connelly, of the Vice Presidents, present. The minutes of the last meeting were read and approved.

The committee then went into the consideration of special premiums, and premiums recommended by the examining judges, and awarded discretionary premiums, among which were the following:

For best grub puller, D. B. Burnham, Battle Creek $1.00

For best acre corn, [136 bu.] W. B. Schuyler, 5.00

Mr. Schuyler having donated the amount of the above premium to the Society, the President, upon request by the Executive Committee, returned the thanks of the Society to Mr. Schuyler for his gift.

The Treasurer here submitted his account current, showing a balance in his hands of $166.89.

A vote of thanks was tendered to the retiring Treasurer, A. O. Hyde, Esq., Secretary S. S. Lacey, Esq., President Milo Soule, Esq., also to Jeremiah Brown, Esq., first President, for their fidelity to the interest of the society, and persevering efficiency in the discharge of the varied duties they have performed, in this, their labor of love.

Clinton County.

With a determined effort on the part of the citizens of the county, the Society will hereafter become a permanent and successful institution. With the present good feeling existing in the county, we hope hereafter to see the Society prosper, and have no doubt that, under efficient management, it will do so. Nearly enough was realized at the last fair to pay the premiums in full, after paying all other necessary expenses. The following are the names of the officers chosen by the Society for the ensuing year:

President—A. R. Marvin.
Vice President—A. J. Reed.
Secretary—H. C. Hodge.
Treasurer—S. U. Alexander.

BOARD OF DIRECTORS.

Eagle, David David Clark; Watertown, Hiram Byam De Witt, Lewis Cobourn; Bath, David P. Dryer; Victor, Ainsworth Reed; Olive, William Dills; Riley, W. Van Dyke; Westphalia, Moses Bartow; Dallas, Anthony Cook; Bengal L. Swagart; Bingham, Charles Kipp; Ovid, William C. Bennet; Duplain, Job D. Sickles; Greenbush, Wm. J. Bancroft; Essex, R. S. Vanscoy; Lebanon, John Vance.

Barry County.

An adjourned Annual Meeting of the Barry County Agricultural Society was held at the Court House in Hastings, on the 5th day of January 1864.

The meeting was called to order by Gilbert Striker, President.

The records of the society for the past year were read and approved.

The following officers were duly chosen for the ensuing year, to wit:

President—Gilbert Striker,
Secretary—J. M. Nevins.
Treasurer—H. N. Sheldon.

DIRECTORS—N. Barlow, D. G. Robinson, D. Striker, S. J. Bidelman, A J. Russ.

VICE PRESIDENTS—D. G. Robinson, Richard Jones, Wm. P. Bristol, E. W. Hewitt, Hiram Lewis, James Stuart, C. R. Dickerson, M. L. Williams, L. Lapham, D. W. Smith, Asa D. Bork, T. P. Johnson, J. C. Bray, J. C. Hanna, I. Messer, Jerome Palmerton.

On motion adjourned without day.

J. M. NEVINS, Secretary. G STRIKER, President.

Monroe County.

The annual meeting of the Executive Committee to make prepartions for the fair of 1864, and the transation of other business, will be held at the Court House in the City of Monroe on Tuesday the 8th day of March next at 1 o'clock P M. The members of the Executive Committee are earnestly requested to attend or to send a substitute. All persons who feel interested in the objects of the Society are invited to attend.

E. G. MORTON, Sec.

The following persons were elected officers of the Society for 1864, at the last annual Fair:—

President—Ira R. Grosvenor.
Vice Presidents—Wm. White, A. J. Keeney.
Secretary—E. G. Morton.
Treasurer—S. M. Sackett.

Executive Committee.—Ash, J. G. Flint; Bedford Mr. Hoeg; Dundee, B. H. Curtis; Erie, A. J. Keeney; Exeter, H. Ross; Frenchtown, G. Hurd; Ida, E. Willard; London, E. Barnes; LaSalle, J. Morse; Milan, S. Lewis; Monroe, D. O. Spaulding; 1st ward, D. Ebersoll; 2nd ward, H. T. Cole; 3d ward, R. Nims; Raisinville, M. Tracey; Summerfield, C. Van Duzen; Whiteford, H. Wakely.

Macomb County.

At the Annual meeting of the members of the Macomb Co. Agricultural Society, held at Washington, on the 10th of Jan. the following officers were elected:

President—Harvey Mellen.
Vice President—H. Andrews.
Secretary—C. W. Whitney.
Treasurer—A. W. Sterling.
Directors—John Smith, Jr., Geo. W. Phillips, D. S. Priest, Timothy Lockwood.

A motion was made to repeal the 6th article of the Constitution, deducting ten per cent. on all premiums of one dollar and over, but was not carried, as it required a two-third vote.

Ryan Again.

The following letter from the "Prophet," we clip from the *Van Buren County Press.* As Ryan is several years ahead of all competitors, on the weather question, we give it entire for the benefit of our readers:

"February, 1864, will "fill the dyke with black or white"—in other words, the ditches will be filled with rain or snow; if not February March will.

The fourth and fifth of February will be days for freshets,—if not on those days there will be none for that month.

Our next spring will be early; teams will be at the plow town meeting day. As soon as the ground is fit to plow, crowd in your spring wheat, barley and oats. You will get good crops under good cultnre. Corn can, and should, be planted the last days of April, and first days of May. We won't be subject to early frosts as in last August. Why? Because next August we will be subject to a good deal of cloudy, wet weather—a good time for plowing—not so good for wheat in the stack.

Here let me give you another peep into the future: The first days in December, 1866, will commence the first severe with plenty of good sleighing; it will be within two points of the winter of 1857. The spring of 1867 will be very late—therefore, have more than a usual share of fodder; don't trust your memory for this; but cut out this letter and keep it until that time.

I can point out every spring for nineteen years to come; and you can't contradict a prophet; but you need not believe him till the time comes.

Would to God this theory was known to farmers and others it would tend to increase and perfect the fruits of the earth "What have we that we did not receive."

W. W. RYAN.

For the Michigan Farmer.

Cure for Bloat in Cattle.

SHIAWASSEE, Feb. 8th, 1864.

Messrs. Editors:—In the December number I noticed a cure for Hoven or Bloat in cattle which brought to mind a remedy which I think is far better than saleratus or tuping. I have used it in several cases of severe bloat, and have known of its being used by others with perfect success.—Take an egg break a hole in it large enough to empty the contents out and fill it with tar, and put it down the animals neck, and I will warrant that in thirty minutes there will be no bloat.

Some of the farmers in this vicinity are intending to raise Tobacco this season, and they want information as to the mode of culture, and we should naturally look for it in our agricultural paper. I think if I had a *Farmer* with an article on tobacco culture I could get two or three subscribers.

Yours, &c. O. EDDY.

A SHEEP 27 DAYS UNDER SNOW.—The Hastings *Banner* says: Wm. C. Trego, of Irving, informs us that one of his sheep was buried under the snow of the 1st of January, to the depth of three or four feet. The thaw of last week brought the sheep to light, still living, after the lapse of 27 days, without food. There is a good prospect that the sheep will recover from its long fast and imprisonment. If the circumstance was not reliably vouched for, we should call it a tough story; but as it is, we call that a tough sheep.

HOUSEHOLD WORDS.

For the Michigan Farmer.

Rural Songs—No. 5—The Woodman.

BY CHARLES BOYNTON HOWELL.

Whether the winter day be fair,
The heavens free from mist and cloud,
With volumes vast of frostless air,
That earth's cold slumbering form enshroud:
Or whether, with portentous blast,
The hyperborean slow wind do blow
Sweeping, like heralds, swiftly past,
Telling of storms that come and go—
The woodman, with his axe
O'er his shoulders flung,
Seeketh the forest depths,
Roaming its paths among
Listen and hear the stalwart stroke,
He levels at the giant tree!
Apace the bark and rind are broke,
And chips are scattered outwardly.
The while, perchance, his thoughts go back
To youth, or childhood's merry time,
When yond the ocean's stormy track,
Within a brighter, summer clime.
By the fireside bright at home
He joined in the laughter and song,
With friends divided now
By death, or distance long.
Or yet, perchance, his free thoughts run
Unto the humble cottage, where
The partner of his joys and one—
Their darling child—together are.
The while the currents of their thoughts—
Husband's and wife's—together meet,
With warm affection truly fraught,
Like living friends each other greet,
And this their mutual love,
Happiness gives and joy,
And a treasure none the less
Thus poverty it doth cloy.
Now has the keen axe reached the core,
The lofty trunk doth creak and bend,
Anow is heard the thundering roar
As to the earth it doth descend,
Awaking echoes here and there
Throughout the confines of the wood,
Sweeping the currents of the air,
And startling voiceless solitude.
Like a giant fallen the tree
Powerless, conquered lies
At a David's feet, whose arm,
Though puny, has won the prize.
Let man, though storms beat round his path,
And hide the sunlight from his face,
(As if He frowned in holy wrath)
His footsteps never backward trace!
But onward steer, through heat and cold,
Through light and shade, forever prove—
Like the swart woodman, hardy, bold—
And strike for right with fearlessness!
And then upon his brow
Will hang the laurel wreath,
Charged with the perfume rare
Of honor's guileless breath.

Ann Arbor, January 29, 1864.

—To redden the cheeks of a young Miss—roll up her sleeves, put her before a wash-tub and then introduce a young beau.

BATHING IN THE WINTER.

CAUSE AND CURE OF COLDS.

"Is it possible you that you bathe your boy all over every day yet?" said a neighbor. Certainly, I replied, he has never missed a day in his life.—"But in this cold weather?" Yes, in this cold weather I consider it all important, and you may judge it does not injure him by his looks; is he not a very pattern of cheerful, robust health?

So many parents are in the habit of neglecting not only their children's bathing, but their own, in winter, that we have concluded to tell you, dear readers, why we consider it important. We have repeatedly urged the importance of bathing, and given the reason for it; we only wish now to persuade you never to stop bathing because the weather is cold, or because you have "taken cold."

Insensible perspiration goes on in winter as well as in summer, and though there is less of offensive odor to the skin when unwashed, its pores will, if neglected, become partially clogged, and less able to perform their functions, and the consequences will very likely be, a hard cold taken you hardly know how.

There is no preventive to taking cold at all equal to habitual cold bathing. It invigorates the system, and gives a healthy glow that will enable it to overcome any slight ailments. A cold generally arises from having the pores suddenly closed by exposure to a current of air, or something of the kind. If already partially clogged from lack of bathing, of course they are more speedily and thoroughly closed by the cold. We have always noticed that those who took most care of the skin, had the fewest colds.

Moreover, if you have taken a cold, the first and most important thing to be done for its removal, is to wash the whole surface of the body thoroughly, thus removing all external impurities, and enabling the pores to resume their office and remove all internal impurities. A little saleratus or even soap added to the water, which in this case might with advantage be warm, will greatly aid in removing particles of dead skin, etc.

This, if the cold is severe, might be followed with profit by a sweat, which would fairly set the pores to work, and relieve the system greatly, if it did not remove the cold entirely. But if the sweat is taken, of course more than usual care will be needed, the day following, to prevent undue exposure of the then sensitive skin, to cold.

The philosophy of the "cold compress," so popular of late years, is this: The sudden application of cold to the heated skin arouses it, and speedily brings on a re-action, and the glow of heat and the perspiration that follow, show that the pores are at work. The dampness of the cloth

assists the perspiration, and it is thought the object is accomplished with less of debility than where heat is applied to produce the perspiration.

But the application of the compress requires care. The cloth should be dipped in cold water and wrung just enough to prevent dripping, and then laid upon either chest or throat, according to the locality of the "cold," and covered with abundant folds of *both* cotton and woolen, so confined by bandage that air cannot penetrate to the skin beneath.

Upon its removal, the skin should be quickly washed with cold water, followed by a brisk rubbing. It is well, too, to protect the surface for a short time with a scarf, or fold of dry cloth. We have great confidence in this cure *when rightly applied*, and much prefer to carry off a cold by the skin, than take medicines to force the bowels to extra exertions, though sometimes this is also necessary.

Bathing, too, in order to secure a beneficial effect, requires more care than is sometimes given. We are not strenous for *cold* bathing as to insist upon it under all circumstances, but think nature often dictates a warm bath. Water if much warmed is debilitating we know, but if there is a great deal of cold water, we should take off the chill by warming it. We especially pity very young children who are forced into perfectly cold water, no matter what their health, the weather, or their aversion to it.

Bathing, too, should be followed by abundant friction with the hand or a soft towel, (not a flesh brush, for this we think injures the delicate texture of the skin,) till a pleasant glow on the surface prevents all unpleasant effects. But a small portion of the body should be uncovered at once, and this, after washing and rubbing, should be covered before another part is washed. A novice at bathing should also select a warm room, though, to one accustomed to the practice, this is unnecessary.—Mrs. J. C. Bateham, *in Ohio Cul.*

Home Education of Children.

In no respect, perhaps, have Americans declined more from the condition of their fathers than in the too frequent neglect of that we will call the home education of children. We presume it is unnecessary, in this age of general enlightenment, to state the obvious fact that education is as much moral as intellectual. Now, in the days of our fathers, the former received more attention relatively than the latter; whereas, in the present age, the latter is cared for to the greatest degree. Nor is this all. Thousands of parents, instead of inculcating at home the virtues requisite to make the child happy, honored and successful in life, leaves these things to be acquired at Sunday schools, in the public academies or by chance.—Yet never, in either of these ways, can a child's moral education, using that word in its most comprehensive sense be properly conducted.

It will be universally conceded that more intellectual proficiency, without honesty or truth, only makes a man a more dangerous member of society. But it is not so generally admitted that the prosperity and happiness of the individual depend in a great degree on his sobriety, prudence, industry, thrift, control of temper, and other virtues, which are best inculcated in childhood, and which cannot be inculcated successfully even then, unless at home. It is an easy way to exclude a criminal, or drunkard, or an insolvent, from our pity, by saying that he is only "reaping what he has sown." But in many cases it would be more just to the victim, and more conducive to the social improvement of the human race, if we would inquire how far his dereliction had been the result of a deficient moral education, or of proclivities inherited from his parents; and, if the result of such proclivities, how far these were the fruits of successive generations ot neglected culture. There can be no doubt that if the investigation could be thoroughly carried out, a portion at least of the burden of shame and guilt would be shifted from the shoulders of the offender, and the truth of the old Mosaical threat be demonstrated by a strickly logical method, that "the sins of the father are visited upon the children, even to the third and fourth generations."

The moral discipline of a child, we repeat, can be conducted nowhere else so thoroughly as at home. He may acquire an idea ef religion at the Sunday school, or the general maxims of morality at the academy, though even these will be more effectually taught in the family; but he can never learn thrift, economy, forbearance towards his kind, industry, perseverance, or a score of other virtues except in a careless way, unless he learns them at home.

It is the example of the parent, the gentle influence of affection, and the inculcating at the right moment by the right thing, which gradually moulds the weak, self-willed character of the child into the strong, well-developed one of the man; and it is the neglect of these which so often transforms the innocent babe into the outcast, the thief, or even the murderer. It is a ruinous delusion which leads parents to delegate to others the moral culture of their children.—The duty cannot thus be shaken off; they alone can perform it. If the child is not trained at home, he will rarely, if ever, be trained at all.—Who can wonder, in age where this paramount duty is often neglected, that so many parents have their "gray hairs brought in sorrow to the grave."—*Waverley Magazine.*

FLORICULTURE.

Monroe Ladies' Horticultural Association.

REPORT ON ROSES: BY MISS HELEN L. WHELPLEY.

The Rose is a subject which is common to every eye, and familiar to every ear. Alike, rich and poor enjoy its beauty and fragrance. Poets have sung of the Rose from time immemorial, and all, the world over, have agreed to pay homage to her elegance and exquisite fragrance, as pre-eminent among the flowers—in fact, have crowned her their Queen. There is no land where the Rose is cultivated to such an extent and perfection as in Persia. There Rose-trees sometimes attain to the heighth of fourteen feet, and are covered with thousands of flowers. We need not be surprised that their minstrels sing of the rose with so much rapture.

But while agreeing with the poets in admiring their favorite theme in all her varieties and developments, we do not now propose to follow them in all their ecstacies of adulation, but give a few dry details in regard to the culture of the plant; for we must learn how to preserve this beautiful plant for the gratification of future poets and minstrels. To begin with:

1st, *Soil*—It may be very rich and loamy, and plentifully supply with vegetable mould, or barn or dunghill manure; for like the vine, it is a great feeder, and cannot be injured by too rich soil. Let trenches be dug of the depth of two spades, and filled with barn yard manure, mixed with bone dust, and after the ground is settled, plant the Rose. The month of November is preferable for setting out hardy Roses. A wet and retentive soil is found to be very injurious to Roses, and in a rich dry loam they have been known to thrive the best.

2nd, *Situation*—Roses will flourish in any situation where the ground has been well prepared, but it is best to plant them where they can be shaded from the intensity of the noonday sun. If they can be placed so as to get the benefit of the morning and evening sun, and shaded during its greatest heat, the blooms will be more perfect, and continue longer. Some varieties are very delicate, and their blooms almost ruined by a full exposure. An eastern or northern exposure is thought to be the best, though they should not be wholly shaded.

3rd, *Planting*—The best season for planting Roses is in the autumn, though if deferred till spring, it should be as early as possible. In our climate, November and April are the best seasons. If planted in the spring the plant should be cut down to a few buds. Any time after the first severe frost, is a proper time for planting. The plants should be taken up with great care, disturbing the roots as little as possible; and the holes dug somewhat larger than the size of the roots, and when planted should stand a little lower than when taken up. Care should also be taken in placing the roots and fibers nicely. For fall planting set the plants a little obliquely, as they can easily be bent down and covered with coarse litter or manure. If it be possible, plant out young and healthy plants: they are much more apt to succeed than old plants.

4th, *Pruning*—Roses in this climate should be pruned early in the spring. To dwarf Roses, cut them down to a few buds, cut away all the old wood and weak last year's growth. Young wood produces the finest blooms, and when profusely pruned, produces them larger and more double than when the bushes are suffered to grow at random. In pruning climbing Roses, it is necessary to retain the whole length of the most vigorous shoots, cutting out all the old wood that will not be likely to produce fine flowers, and pruning down the lateral branches to one eye. The manner of pruning must in some measure depend on the variety of the Rose, and the style in which it is to be trained. The cultivator must of course, employ his own taste in this matter, whether it is to climb over an arch, pillar, or trellis, &c., the proper way will naturally suggest itself.

5th, *Propagation*—That can be done in various ways. Some varieties succeed well by cuttings, but with most of the hardy kinds none but the most skillful gardeners resort to that method. All the summer blooming varieties may be propagated by layers. It can be done in midsummer, and for several weeks afterward. Young shoots, at least one foot long, and well matured, should be selected for this purpose. The mode of operation is the same as in all plants. In some varieties the layers will be sufficiently rooted in autumn; but in many kinds, particularly the hardy perpetuals, they will not be ready to separate from the parent stem till the autumn following. Where Roses are inclined to throw up suckers, there is no difficulty in increasing the stock by this plan. These should be taken off with as much root as possible, every autumn, and planted out in nursery rows or where they are to remain, if strong plants. The parent plant is also much benefited by this operation. All the varieties of the Rose can be propagated by budding, and to increase new and rare varieties, this mode is always resorted to. There are some sorts, naturally weak, which flower much more perfectly when budded on some strong growing species. But it requires much care and attention to keep them in order, as the stock is continually throwing up suckers, drawing all the nourishment from the budded variety.

Much more might be said on the Classification of Roses, and also their diseases, and the insects which infest them, which might be the theme of several essays more; and as we have been able, only to give a partial view of the subject, we hope some one one of our members will continue it further, as it is an interesting subject, and one which cannot soon be exhausted.

GUIDE TO THE FLOWER GARDEN.

We have received of Mr. James Vick, of Rochester, N. Y. one of our best and most successful florist, his interesting Catalogue for 1864, containing accurate descriptions of the leading floral treasures, with full directions for sowing seed transplanting and after culture, &c. Those who delight in floriculture should send a stamp and obtain a book worthy to be read upon this subject and to select from. We give the following extract from it in regard to flower culture:—

PREPARING THE GROUND.

The soil for flowers should be made deep—a foot or eighteen inches at least—and then the plants will not suffer in dry weather. It should also be well pulverized—completely broken up—and made as fine and mellow as possible. It is useless to try to grow good flowers on a poor soil, so, if not naturally rich, make it so with a liberal supply of well-rotted manure.—Every one—even those who do not keep a horse or a cow—can have a good pile of manure for flowers without cost. Obtain a lot of turf from the sides of the roads and the corners of the fences, place it in a pile, and throw all the soapsuds and slops upon it. In the autumn, collect the fallen leaves and put them upon this compost heap. Keep adding to it, as you have time and convenience; and when well rotted, you will have excellent manure for flowers.

SOWING SEEDS.

Many seem to think that seeds will grow anywhere and under any circumstances. They have observed the farmer make a hole and throw in his corn, and in a little while it was up and growing vigorously; they have learned that the seeds of our native trees and weeds grow without planting and care; and from these facts they get the idea that it is of little consequence how or where seeds are planted, so that they are in the ground. But, these should remember that the seeds planted by the farmer are usually large and produce stronger and more robust plants than those of the florist, and thus are enabled to bear more hardships and to live under more unfavorable circumstances. Still, the farmers are fast learning that the better they prepare the ground, the more carefully they sow their seeds, and the more they study the nature and wants of the plants they cultivate, the better the crops. If the florist would be satisfied with only the most hardy and prolific flowers, such as would take care of themselves, then he might pursue a careless system of planting and cultivation and fill his grounds with Dandelions and Poppies; but he wants the rare and beautiful flowers of every land, so far as climate will permit, to adorn his garden. He must have those that flourish naturally in warmer climes and under more genial skies; and to do so, care and skill are required, and a different system of culture than is

necessary for the propagation of weeds or the more hardy plants.

There are others who have altogether an exaggerated view of the difficulties to be encountered in the growth of plants from seed. These views may be the result of repeated failures. They think a hot-bed or a green house essential, and that without these conveniencies, little can be done in growing valuable plants. This is not the case; yet it is a fact that in a hot-bed, if properly managed, seeds will grow freely; and it is well that we should ascertain why this is so.

CAUSES OF FAILURE.

In the first place, however, we will examine the causes of failure. If fine seeds are planted too deep, they either rot in the damp, cold earth, for the want of the warmth necessary to their germination, or, after germination, perish before the tender shoots can reach the sun and air; so that which was designed for their support and nourishment proves their grave.

If the soil is a stiff clay, it is often too cold at the time the seeds are planted to affect their germination; for it must be understood that *warmth* and *moisture* are necessary to the germination of seeds. Neither of these will do alone. Seeds may be kept in a warm, dry room, in dry sand or earth, and they will not grow. They may be placed in damp earth, and kept in a low temperature, and they will most likely rot, though some seeds will remain dormant a long time under these circumstances. But place them in moist earth, in a warm room, and they will commence growth at once. Another difficulty with heavy or clay soil is that it becomes hard on the surface, and this prevents the young plants from "coming up," or if during showery weather, they happen to get above the surface, they become locked in, and make but little advancement, unless the cultivator is careful to keep the crust well broken; and in doing this the young plants are often destroyed. If *stiff*, the soil where fine seeds are sown should be made mellow, particularly on the surface, by the addition of sand and light mould.

HOT-BEDS AND COLD-FRAMES.

It is to overcome these evils that hot-beds are useful. By being protected at the sides and ends with boards, and covered with glass, they confine the moisture which arises from the earth, and thus the atmosphere is kept humid and the surface moist, and the plants are not subjected to the changes of temperature, as a uniform state can be maintained, no matter what the weather may be. The bottom heat of the hot bed warms the soil, and enables the grower to put in his seed early, and obtain plants of good size before the soil outside is warm enough to receive the seed. Care, however, is required to prevent scorching the young plants. In bright days, the heat is intense inside the frame, and unless air is freely given, or some course taken to obstruct the rays of the sun, most likely a great portion of the plants will be ruined. When the sun gets pretty warm, give the glass a thin coat of whitewash. This gives a little shade, and, with some air during the middle of bright days, will make all safe. As the cold-frame depends upon the sun for its warmth, it must not be started as soon as the hot-bed, and in this latitude the latter part of April is early enough. Plants will then be large enough for transplanting to the open ground as soon as danger from frost is over, and, as a general thing, they will be hardier and better able to endure the shock of transplanting, than if grown in a hot-bed. A frame of this kind any one can manage. Watering occasionally will be necessary; and air must be given on bright, warm days. Shade also is necessary.

SEED-BED.

When these conveniences are not to be had, make a bed of light, mellow soil, in a sheltered situation in the garden; and as soon as the weather becomes settled and the ground warm, sow the seeds, covering them with a little fine earth, and if very small, sift it upon them. Some one has given as a rule that seeds should be covered twice the depth of their own diameter; that is, that a seed one sixteenth of an inch through should be covered one-eighth of an inch. Perhaps this is as near correct as any general rule can be. If the weather should prove very dry after sowing, it would be well to cover the beds of very small seeds with damp moss, or, what is better with evergreen boughs. These must be removed as soon as the plants are well up. Those of my customers who heed these hints will have no cause to complain of poor seeds.

TRANSPLANTING.

After the plants in these beds have obtained their second leaves and made an inch or two of growth, they should be removed to the garden beds or border. This should be done on a dull, showery day, if possible; if not, the plants may require shading after removal until they become established. In transplanting in dry weather, always give the plants a good soaking with water, and also the soil to which they are to be removed, an hour or so before removal. Remove them with the transplanting trowel, and disturb the roots as little as possible. If the plants are not too thick, this is not difficult; and in sowing, it is well to have this in view, and sow evenly and thinly. As soon as the young plants come up, if too thick, a portion should be removed. A few plants, with long tap-roots, will not bear removal well. The Larkspurs are difficult; and these and the Poppies, the Scabious, and plants with like roots, should be sown where they are to flower. Still, there are few plants but can be removed when young, with proper care.

How to raise Geese.

Mrs. S. Pillsbury, of Derry, N. H. furnishes the *New England Farmer* with her mode of raising Geese. The old lady's ideas may prove useful to some of our readers:

I recently found some inquiry in the Farmer about raising geese, and as I am an old hand at it, I thought I would reply. When they commence laying, which is usually April or May, a box with bran or cotton on the bottom should be provided, so that the eggs will not roll about. As often as there is an egg laid in the box, the rest of the eggs should be turned over carefully. When the goose is done laying, and wants to set she will make her nest, feather it, and set on it; the nest should then be taken out very carefully, and a nest made with about four quarts of horse manure, and some chaff on that; let it be made large and commodious, and then lay the nest that the goose made, on the other very carefully, not disturbing the straw nor feathers. Fill in all around the nest, making it about level, so that the goose can go on and off with ease.

The goose sets four weeks; mind the time correctly. Two or three days previous to the time of hatching, place the egg in a broad, deep thing, with milk-warm water enough to let them swim, and those that have live goslings in them will bob round and swim, and those that have not, will sink or be still; the gosling will break the shell on the end that stands out of the water.

Do not put the eggs in water after the shell is broken, but drop some water on the gosling's bill, when the gosling is hatched and is nest-dry. Take it the hand, and with the thumb and finger press the bill open and drop in a pepper corn, and then some sweet cream; have ready some green turf, place it round the nest, and sprinkle on it some Indian dough, where the goose will pick, and learn her young. They are a very tender fowl, and require care till their feathers are grown, after that they need not be fed, if they run in the road. They can be plucked three times the latter part of the summer months; some think it very wicked to pick them, but they shed all that you pick, quills and feathers; the can be tried and if they come hard, wait a week or two. Do not let the young go to water too soon; have a short thing for them to drink out of; if they should get chilled, take them to the fire and put warm ashes on their back, and feed them with cream with a teaspoon.

Two geese are better than three, and one is better than two, as they are apt to beat each other, and unless they hatch altogether, they will beat the young. When I kept geese, I fed them on corn till the grass grew and not after that till they were fatted in the fall.

I am over 60, and I write without spectacles.

No man has a right to do as he pleases, unless he pleases to do right.

DOMESTIC ANIMALS.

For the Michigan Farmer.

DOMESTIC ANIMALS.

BY SLOW JAMIE.

No. 13—The Lama.

This creature has been called the American Camel. It resembles the camel in temperance and patience, nor is it unlike it in form, but it is pearer the size of the sheep than the tall Arabian. A good sized lama is hardly four feet high, and a hundred pounds is all they put on their backs and even that is too heavy a load for so small a beast.

With us the lama would be of little use. The cow is better for milk, the sheep is better for wool, and the horse or mule a great deal better for work. But on the Andes mountains, this animal is better than all these together. It does not walk upon hoofs like the cow, nor yet on paws like a dog, but something between the two. It has two toes before and one behind, and wherever it can find a jutting out stone among the mountains as broad as its foot, it can step securely. They are used to carry the ore from the mines over craggy hills to the furnace. Load twenty or thirty, lead one and the rest will follow. They make a journey of fifteen or twenty miles a day. They are no expense to their indolent shiftless owners. They collect their food by the way, and do not need a stable either summer or winter.—The South Americans eat their flesh, make cloth of their hair, and even sometimes use their milk. So there is no animal, not even the camel, that is more useful in its own locality.

There are different species of the lama, some black, some white, and others tawny. They all run wild in Peru and Chili. There they are much hunted for their fleece. The white is most prized. Although the tame animal is a slow walker, yet in a state of nature they are very nimble. When surprised on the plains, a dog might run them down, but if once they gain the mountains they skip from rock to rock and leave their pursuers behind.

The alpaca sheep belongs to the same genus.—It has a much finer fleece, indeed its tegument is rather fur than hair. Every one knows that the genuine alpaca cloth has as fine a lustre as silk.—Some attempts have been made to introduce the alpaca into this country, but it wants a cold pure mountain air, and has never done well removed from its native hights. It may yet be propagated on the Rocky Mountains.

The hog cholera is making great havoc in Montgomery county, Pa. One gentleman has lost forty porkers by this disease.

MANAGEMENT OF POULTRY.

Now that *good* chickens are worth one dollar per pair and Eggs forty-five cents per dozen, it is time that every farmer should give a little more attention to "Poultry Economy," which under the present prices will pay *better* than Sheep husbandry, stock raising or field crops. Let every one who reads this, be it man, woman, or child, (for the latter two *can* do it,) devote *one day* to the comfort of feathered stock, and it will pay two hundred per cent at the present rates.

We have a cock and six hens—within the past two weeks we have kept an account, and the results, altho' upon a small scale, have surprised us. They have only been kept in rather a cool shed, and fed with a pound of chopped meat *once* a week and corn *three* times, with a plenty of pure water, and the odds and crumbs from the table.

Our account for two weeks stands as follows:

One peck of shelled corn,	28c.
Two pounds fresh meat,	8c.
Total expenditure,	36
Six hens, average four eggs per day for fourteen days,	56
56 eggs at 40 cts. per dozen,	$1,86
Balance in favor of hens,	$1,50

At this ratio, the profits upon 100 hens during the same period would have been $22,50, or equal to $585,00 in one year. As the season for beginning to raise poultry is near, we give below a simple and easy method of management.—W. S. J.

Hen House.—Your hen houses should be roomy, say 10 feet long, 10 wide, 10 high, where it leans against a stable, barn or wagon shed, and 7 feet high at its lower side; and its front face should be towards the south and have glazed windows on hinges to let in the sun's warmth and light in winter, and for the admission of fresh air in summer. The hen-house may, if desirable, be built at the end of the hog-pen, or over it.

Roosting Place.—The roosting place of your hens should consist of a ladder-like frame, (whose slats are about 18 inches apart,) that can be leaned against the rear of the house at any desired inclination. As the hens in roosting, always occupy the highest place first, this will bring them close together, and keep them warmer in winter. And in summer this ladder may be raised up to a level, so as to keep them farther apart and cooler then. The floor should be made of stone, sand, and lime, concreted or cemented together so as to form a hard and a dry floor, and keep out rats. And a few shovelsful of dry, pulverized clay sprinkled over this floor every week or two, will absorb all the moisture of the hen dung or droppings, and so keep the house free from bad odor.

Breed of Chickens.—Carefully avoid breeding

your chickens from the same stock of fowls, or from fowls closely allied to each other. For this will invariably produce a small, delicate and unprofitable stock, while cross-breeding of choice different kinds of poultry will just as certainly yield you a large, strong, and very profitable supply of hens and roosters.

Egg Nests.—The butter or lard boxes, or tubs, procurable at any grocer's, put on shelves raised two or three feet above the floor, at the rear end or sides of the hen-house, make the best laying nests, as their well-soaked greasiness will keep the hen-lice entirely away, as no hen-louse can live on or in grease. And hence it would, for the same reason, be well to give the entire roosting ladder an occasional greasing. And, the boxes aforesaid should be frequently cleaned and supplied with fresh straw or hay.

Young Chickens.—As the earlist hatched chickens, provided they have a dry, warm and sun-exposed house or coop, free from lice, generally do the best; the hens should be set to hatching about the middle of February or the 1st of March, but have fewer eggs than common, so that they cover them well and keep them equally warm. And the young chicks should be kept off the cold ground and out of the wet, and in a dry, warm place, and fed with warm food, until they are old and strong enough to do without warm feed. If a sitting hen looks pale about the head, it is a sure sign that she is lousy. To remedy this evil, clean out her nest; wash her eggs in warm water, and grease her under her wings and on her breast and belly, and put her back again and feed her well, and she will soon improve and do well.

Eggs in Winter.—To make your hens lay eggs in winter, they must have a clean, dry and warm house, and be fed on scraps of flesh or unsalted meat, fat, finely powdered bones, oyster shells and refuse lime, greens, cabbage leaves, etc., and have a proper supply of pure and unfrozen water to drink. Hot Indian corn, buckwheat and oatmeal, contain a large amount of heat-producing qualities, and so form the best winter food for laying hens.

Gapes in Chickens.—Holding gapy, chickens in or over tobacco smoke until they have inhaled smoke enough to make them sneeze two or three times, is said to be an infallible cure for this disease.

Sunflower Seed.—Chickens are very fond of sunflower seeds, which not only fatten them very quickly, but make their flesh very tender, juicy and fine flavored. And so it will be well for you to plant sunflowers in some corner of your grounds for this purpose.

It is calculated that the wool clip of Minnesota the present year will not be less than 500,000 lbs.

CLOVER HAY FOR HORSES.

Dr. McClure is one of the leading veterinary surgeons of Philadelphia, and we may add, of the United States. His opinion, therefore, on any matter connected with the food and health of the horse, can be quoted with confidence. In a recent article in the *Culturist* he *advocates the feeding of clover hay to horses*, and thinks it would prevent a disease now prevailing among the horses of that city, during which they will not eat timothy hay; but that it is difficult to obtain clover hay, so little of it being brought to market. He then proceeds to say:

Why is this the case? Simply because there is a prejudice existing among all classes of horsemen, and from them communicated to the owners of horses, against feeding this kind of hay. First, because it is said that clover hay produces *heaves*, and secondly, because it is said that it is not respectable to be seen feeding with clover hay, as it looks parsimonious. These opinions concerning this article are so widely and firmly fixed in the mind of almost every groom and stableman, as well as horse owner in Philadelphia, that I believe it has been the cause why not farmers are not found giving clover cultivation to the extent it ought to be, or as its superiority as an article of provender demands. Let us now examine *in brief*, the objections that are laid against it. It is said it will produce *heaves* in horses. The idea is as false as it is preposterous. If broken wind is produced by an article of food, it certainly is not from food but from the quantity given. In like manner heaves may be caused by a too great quantity of water, oats, corn or any kind of hay whatever, given at an improper time, as when the animal has a journey to perform. In a word, it is the person's fault in giving too much food at an improper time, and not the character of the food that thus produces heaves in the horse. The man, who, when feeding a horse, would fill its manger with oats and corn, would not be considered a very fit man to feed and care for horses, neither is that man who would fill a large rack full of clover hay; as the animal will not stop eating until it has hurt itself, or has eaten every blade of clover before it; as every horse is fond of it, and as before stated, sick horses will eat it when they will not eat anything else. Without another word the argument is complete.

For argument's sake, let us see what there is in the other objection of clover hay. It savors of meanness. Does this opinion arise from the idea that the queenly cow eats and feeds upon it in all our large cities? How much inferior is she to the horse, and which adds most to our domestic happiness as well as health? Is it mean to purchase for horse feed, hay which is superior to any

other, and sold forty cents to half a dollar less than the best kinds reported in the market? Or, it is a mark of generosity in the department or character of any man, to feed his horses upon that which the animals do not seem to relish, trample a large portion of it under their feet, to be carried thence to the dung hill, when another article superior to it, in point of nutriment, and costing from forty to fifty per cent. less may be obtained?

The whole may be summed up in a few words, as follows:

Good clover hay contains forty-five per cent. more fattening matter than timothy hay, and about forty per cent. more than the English rye-grass hay; about ten per cent. less than dried lupins or vetches, which are extensively used in Europe for the feeding of both horses and cattle, and which are second only to the *Trifolium hybridum*, or *Alsike* clover, so named from a district in Sweden called Alsike. Alsike clover contains the properties of both the red and white clover, and was first introduced into Great Britain about 1854 or 5. This variety of clover has for the last few years engaged the attention of agriculturists in Scotland and various parts of England to a great extent. Its reputation is now so firmly established, that more of it has been sown the last year than ever before. It is said by many agriculturists that animals will leave any other grass or clover to feed on the Alsike, and they say farther that the more it becomes known the greater will be its cultivation.

We may add to the foregoing that thirty years ago farmers never raised timothy for their own use, and upon many farms, even within reach of the Philadelphia market, not a pound of timothy hay was produced. Farmers fed clover exclusively to their horses, with cut straw and shipstuff, and moderately with whole corn. These horses were put to all kinds of work, were ridden and driven at all times; and we venture to say, backed by our recollection, that the horse at that period was not subjected to one-half the diseases that it is now. The truth is we will have to go back to clover, probably of the new variety named to a considerable extent.

A GOOD MOVE.—The loyal farmers in the vicinity of Battle Creek, this State, drew several hundred dollars' worth of wood to the "war widows" of that town. The ladies, desirous of acknowledging the patriotic act of the farmers, prepared for them an excellent dinner, and waited upon them at the table. The farmers thereupon made a contribution of wheat, two bushels each, which a miller ground without charge, with the addition of twenty-five pounds of flour.

SHEEP STABLES AND SHEEP YARDS.

CLEANING OUT STABLES IN WINTER.

It is rather the prevailing custom among Northern flock-masters not to clean out their sheep stables in winter, but merely to cover the manure occasionally with fresh litter. This is unquestionably bad practice, in two particulars. It certainly prevents making anything like the amount of manure which could be formed by mixing the dung and urine of the sheep with an amount of litter which would half fill the sheep stable, if suffered to accumulate there throughout the winter. And there can be no reasonable doubt that a deep bed manure, which, except during severely cold weather, is constantly heating, evolving gases, and filling the apartment with a warm steam and the odor of fermenting dung, and which, after a decided thaw of a few days, positively produces an offensive stench, cannot form a very healthy lair for sheep. It is rather the prevailing opinion now among the best flock-masters, that the increased practice among Merino sheep of pulling their own and each other's wool in the winter, is occasioned by an irritation of the skin caused by lying on these beds of heating manure. Unstabled flocks do not, as far as I have observed, thus become addicted to "wool-biting." Stables should be cleaned out three times during the winter, say in the early part of January, the latter part of February, and in April. And in the intermediate periods, it is an excellent practice always to strew the manure on the floor with plaster (gypsum), prior to covering it with fresh straw. This absorbs the escaping gases, and thus not only preserves the purity of the atmosphere, but vastly enhances the value of the manure.

YARDS.

They should be constructed on dry, firm, thoroughly drained ground; and a gravelly soil, rapidly permeable by surface water, and which quickly dries, is much preferable to a clayey, tenacious soil, or a peaty or mucky one which retains moisture. All the yards ought to have separate access to water, and, if practicable, separate access to different fields.

Straw or otherwise littering sheep yards in winter in the most thorough manner, is a matter of prime importance. If sheep are compelled to stand or move about in mud or water whenever out of doors, the most liberal feeding and good management in every other particular, will hardly preserve them in the best condition. They should have a comparatively dry out-door bed to stand on in wet weather. Sheep—or at least all the upland breeds of sheep—find one of the worst enemies of their health and thrift in habitual wetness under foot. Muddy yards prevent sheep

from moving about out of doors and spending a portion of the time in the sun and fresh air, in pleasant weather; promote foule; render hoof-rot incurable; and cause lameness and annoyance to sheep which have sound feet, when a sudden freeze converts the small pellets of mud which adhere to the hairs in the forward part of the cleft of the foot, into pellets of stone. A little straw is excellent feed for sheep. If it is scattered over the yard they will "pick it over," eating the best parts, and leaving enough to keep the littering constantly renewed.—*Randall's Practical Shepherd.*

WINTER TREATMENT OF SHEEP.

Having practiced for several years the system of keeping my sheep in close confinement during winter, I do not hesitate to recommend it to others. For two winters I kept one hundred wethers under a hay mow, 20 by 30, with a side rack round the out side on the hill, with a double rack through the centre which divided the flock into fifties. One 4½ foot door was opened at a time, for an hour in the middle of the day, giving its fifty an opportunity to go into an open yard for water. All the rest of the time they were kept shut close, with only just room to lie down.—They did better than those with more room. My ewes were divided into flocks of twenty-five, and were penned by turning two open racks at right angles, giving the ewes a chance at two sides of a rack.

These are watered by setting a box 15 by 24 inches, and 8 inches deep, in the rack and the water carried to it with a pail. This allows two flocks to drink from one box. Before foddering, the box is turned over and left in the rack. A little meal thrown in the box will stop all leaks.

Ten good sized ewes will drink three pails of water, but will do very well with half that amount daily. The watering should be during the warmest part of the day, and once a day is sufficient. Care should be taken not to over-feed.

I think it is equally detrimental to over-feed sheep on hay, that it is horses or cattle on grain. It is not as well to let a horse or an ox have free access to the oat bin, as to give them a regular meal twice a day. So with the sheep, they should only have what they will eat up clean, in from one hour to one hour and a half. Some practice giving the sheep more than they want, and then clean out the racks for the colts. A careful feeder will only give what is needed, and it will all be eaten up, and with a very little care can come very near the actual wants of the flock. I do not hesitate to say it is far better for the flock than over-feeding, whether fed on hay, straw, or grain

The practice of stacking sheep out, and at best give them an open shed, cannot be too highly censured. The sheep is very regardless of the future. They will frequently stand out during a sharp rain and chew the cud, when they might as well seek a near shelter. The fleece forms a temporary protection, and the sheep feels the storm very little through it, unless accompanied with wind or severe cold. It is the days that follow a wet fleece that tell on the health and constitution of a flock of sheep. It is this that the flock-master must look to with especial care, as the sheep has only the instinct for his present wants. The future depends on the shepherd. The objection most frequently urged against this method of wintering sheep, is that the ewe has too little exercise for the health and strength of the lamb. I feared that myself, but practice has proved my success, as my flock of lambs can now speak for themselves, as nearly as a dumb animal can speak. They can at least speak understandingly to the eye of a practical wool grower. The flock should be foddered soon after day light in the morning, and early enough at night to allow them time to clean all up before dark. Sheep kept in this way will have a sprightly look from the eye, and when standing at ease are inclined to stand with their fore and hind feet far apart. While those exposed to all the inclemencies of the weather, will stand with all their feet close together, roach back and dull eye. Too much ventilation is a source of annoyance to a flock. When I keep all the sides closed for weeks, my flock does better than when left open.—T. M. Younglove, *in American Stock Journal.*

FEEDING FISH OFFAL TO SHEEP.

At a meeting of the Maine Board of Agriculture, in Jan. Dr. Weston read a rather novel proposition for "foddering Sheep," from Mr. Dana. This may be applicable to the lake shores of Michigan as well as Maine, as we have seentons of fish cleanings thrown away. We give it for the benefit of our readers;

"Necessity is the mother of invention," and sometimes of discovery also. Farmers in the eastern part of the State have for the last two years had need to apply this saying in devising ways and means to save their flocks and herds. The hay crop of 1862 was less than half a fair average crop, and that of 1863, still less than its predecessor; and the problem to be solved very generally, was how to winter such stock as must be wintered. The usual substitutes, roots and grain, were as scarce in proportion as hay, and to buy either hay, grain or roots at present prices, for feeding stock, would cost more than the animals would sell for in the spring. This state of things has caused almost an indiscriminate slaugh-

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ter for old and young. Most farmers have reduced their dairy stock to the lowest number necessary for their own supply, sent their young steers and heifers to the butcher, and their working oxen and milch cows with their swine, to the sausage mill. Sheep have gone in droves to Brighton, and the bales of pelts, seen on the steamers, testify to the necessity of the region in regard to forage. Now out of this necessity come the knowledge that the sheep is an omnivorous animal, living not upon vegetables alone, [and the same probably will be found true of other animals besides the sheep and hog,] but greedily eating and thriving upon animal food as part of its diet: and the statement sometimes made that farmers on the coast send their cows out fishing and feed them on what they catch, comes nearer to the truth than many suppose. Some farmers or sheep owners on the coast and islands leave their flocks to provide for themselves—and they live through our winters on such fodder as the sea shore furnishes—and other farmers at a distance from the distance of the shore, go there to seek food for their cattle as well as for themselves.

Fish pomace or the residuum of herrings after the oil is pressed out, is greedily eaten by sheep, hogs and fowls. Probably pogy chum would be eaten as well. Smoked alewives, and frost fish also furnish a food palatable to cattle. The fact of animals eating fish, being established by ample trials, the question comes next, what is the effect of such food upon the system? In the region alluded to, the seaboard towns of Maine, large quantities of this fish pomace, and refused fish are used as manure, usually as top dressing for grass, and flocks of turkeys that feed upon these fields, get fat and *fishy*. Pork, so fed, will grow and get fat, and be very nice, for those who like train oil. Sheep also thrive well, get fat, and yield heavier fleeces than when fed on anything else produced in that region. Probably linseed or cotton seed oil cake itself is not more rich in the elements of wool and flesh, than this *animal* oil cake. What its effect may be upon the flavor of mutton, is among the things yet to be determined—as also its comparative value as an article of food. Careful and close observing farmers who have fed it, assert that it is of equal value with good hay ton for ton,—and that its value for manure is in no degree diminished by passing it through the living mill and thus reducing it to a much more convenient state for applying.

An objection to its use on a large scale is found in the fact that it soon gets "rank and smells to heaven," or at all events over a considerable portion of one's little share of earth. But sheep seem to be no way fastidious, and ask no questions about the freshness of of the fish. For manure it is dried and mixed with other ingredient. If it could be sufficiently dried, without other substances, to prevent putrification, it would form a valuable article of cattle feed in regions from which it is now excluded by the expense of transportation, and its own odoriferous nature."

DETROIT CATTLE MARKET.

BEEVES.—First quality and extra	$5 00a5 50 per cwt.
Ordinary	4 25a4 75
Common	3 50a4 00
Inferior	2 50a3 25
SHEEP—Active at $5 50a6 00 per cwt.	

THE WOOL MARKET

The wool market in Michigan is governed entirely by the prospects of prices and demand in the eastern markets—Boston, New York and Philadelphia—as buyers in this State do not generally buy upon their own account, but are commissioned to purchase and ship for extensive manufacturers in the New England and other States. Therefore, when there is any apparent uncertainty in prices, these agents are immediately instructed to hold back from large purchases—in this manner, for many years, has the wool crop of Michigan been controled, and not until lately, have the producers of this great staple been fully aroused to hold on to their clips long enough to realize a fair price, letting it go for from 30 to 45c. when in fact, it should have brought from 50 to 60c. Now, however, wool of the best qualities in good order, commands 75c. per pound, that this is a high price and very profitable crop at this rate all will acknowledge. Not much has been done openly since our last issue, but by an examination of the freights we find large quantities are being forwarded. The highest point ever reached by wool was in March 1863, when, for a few days the finest lots sold in New York city for $1,05 for Fleece and 95c. for Pulled, and in Michigan for 80 a 85c, whether it will fully approximate to this price for March 1864 is doubtful, as the season has been generally open and mild, and there has been less need of heavy woolen clothing. The U. S. government has made large contracts for army clothing which will probably cause medium and coarse wools to become more active, and as "the production of army woolens which has been to a large extent suspended for some weeks past, must now be vigorously renewed, in order to meet the pressing demand of the government for army clothing. It is estimated that during the next ten weeks between *three and four million pounds* of coarse wool will be required for army consumption."

The prices in Detroit have not changed since our last, and Wool has been quiet but firm, with a disposition to activity from eastern advises, but a fear on the part of buyers to take freely until some DECIDED feature was fixed upon to create a more pressing demand, and we think this move is near, from the following extract from an article in the *U. S. Economist* headed "Wanted—Army Clothing:"

"In the three markets of New York, Boston and Philadelphia combined there is not to-day 100,000 yards of Army Kersey for sale. Yet in this condition of the market, the Department advertises for proposals for the following garments, all made from that description of cloth, uniform coats, infantry; uniform coats, artillery; uniform jackets, cavalry; uniform jackets, artillery; trousers, footmen's; trousers, horsemen's; great coats, footmen's; great coats, horsemen's; and also for samples of piece kerseys. This advertisement contemplates a purchase of probably not less than two and a half million of yards of Kersey. The Bureau at Philadelphia, we understand, is to be out very shortly, with an advertisement for contracts

also covering a large amount of similar goods; so that the Quartermasters at the two cities will require nearly *four million yards* of Kersey. We are informed that the supply of clothing in the Departments is very low, and have no doubt that such is the fact. How the required goods are to be produced within anything approaching the time desired by the government it is impossible to conceive. Manufacturers are employed actively on goods that pay them much better than army goods, and will not be induced to turn their machinery on Kerseys except they can contract at much higher prices than the government has been wont to pay; and the probability is that even then so few of them will be willing to make these goods that the required amount will be a very long time in course of production. Two things, therefore, appear certain that the government will have to pay very high prices for goods and that the army will have to be greatly inconvenienced, if not hindered in its operations, from the want of clothing."

Prices in Detroit are unchanged since Jan. 25 as follows:

Pure blood Merino, extra clean,	70 a 75c.
Mixed " " good order,	65 a 70c.
Canada long clean Fleece,	58 a 65c.
Ann Arbor	68 a 72c.
Dowagiac	65 a 70c.
Jonesville	65 a 72c.
Three Rivers	60 a 70c.
St. Johns	60 a 70c.
Marshall	65 a 70c.
Kalamazoo	60 a 72c.
Adrian	65 a 75c
Grand Rapids	65 a 68c.
Pontiac	68 a 72c.

NEW YORK MARKET.

There has been considerable activity in Wool the past week, still it has not been general.

The operations have been to a fair extent, but in a quiet way the general market not participating. With the exception of Kersey Wools, which are about 5 per cent. higher, the market is weak, and lower prices have been accepted for both Domestic and Foreign. All sorts of dodges are being resorted to by both buyers and sellers, and in the present unsettled condition of things, and in face of a very large public sale [one million pounds of Fleece and Pulled and 5,000 bales Foreign, all parties seem between "wind and water." Regarding the future of prices there is considerable uncertainty. Some think that there will be an advance; others that present prices will be maintained; and others again that there will be a decline. It seems quite difficult for any to fathom the future and we must leave it to time. The sales include 300,000 lb Fleece at 68a82½c including one lot of 90,000 lb Fine Pennsylvanian at 82½c; 100,000 lb Pulled at 72a76c for super. and 73a78c for Extra; 100,000 lb California, 40a50c 15,000 lb Santa Fe, 48c; 14,000 lb Mexican, 34c; 350 bales East India, 54a60c; 700 African [Rabbatt] and other kinds, 33a50c.—*U. S. Economist*

BOSTON MARKET.

The market for domestic Wool has been very quiet during the week, we might say, in fact, dull. As the season advances, holders remove anxious to realize, and this disposition has been met on the part of buyers by holding back and purchasing only for immediate wants.

We cannot report any change in prices of domestic, but it is evident that no considerable lots could be forced off except at some concession, which holders at present are not prepared to make, in consequence of the great auction sale to come off on the 17th inst. The sales of the week add up 350,000 lb. fleece and pulled, the fleece at prices ranging from 75a87½c for super and extra. Included in the sales of fleece were 150,000 lb *Michigan*, Illinois and New York State, at 78a80c; several lots of medium and fine Ohio at 82a83c; 16,000 lb choice Ohio at 85c; 1,000 lb choice Pennsylvania at 87½c, and some small lots as high as 90c per lb. From 85a90c, however, are very extreme figures for fine Wool, and can only be obtained for very choice and fancy lots where the quality is very marked and superior. In Canada Wool there have been sales of 30,000 lb at from 70a76c. and 2,000 lb ordinary at 67c per lb. The transactions in foreign Wool have not been to any extent.—*Shipping List.*

PHILADELPHIA.—There has been less activity since our last report, particularly in the finer goods, but for kersey goods there is a steady demand. Medium, 81a82c; tub, 81a84c; Illinois 76; common, 75a78c. The *North American* says: There is a little better feeling in the market, and rather more doing in the way of sales; the demand, however, is very moderate as yet, and about 150,000 lb have been taken in lots at 75a80c. for low; 60a82c for medium, and 82a85c for the fine fleece and tub.

There seems to be a difference in the extreme figures in the Boston 90c. and New York prices 82½c., of 7 cents, the former having thus advanced in fine fancy lots of superior kinds. March will be the turning point in the wool market, so look out and close off if fair prices are offered, unless you wish to hold over a year.—W. S. B.

DETROIT MARKET PRICES,

Ending February, 19th, 1864.

Carefully corrected just before going to press, by

C. L. CROSBY & CO.,

Commission Merchants and Dealers in Fruits, and Western Produce generally. No 162, Woodward Avenue, Detroit, Mich.

White Wheat	₩ bush.	firm, prices from wagons	$ 1 85@1
Red Wheat	do	do do	1 25@1
Corn, Shelled,	do	good demand do	1 00@1
do in the ear,	do	do do	0 85@0
Oats,	do	unchanged	0 64@0
Rye,	do	wanted at an advance	1 00@1
Barley, new	₩ cwt.	advanced & good de'd	2 68@2
Potatoes, Neshannocks,	₩ bu.	advanced & wanted	0 80@0
do common	do	do	0 70@0
Apples,	₩ bbl. winter fruit	active demand	2 25@2
do dried	₩ bush.	firm and active	1 75@1
Seed, clover	do	scarce and wanted	8 00@8
do timothy	do	quiet	3 00@3
Beans,	do	quiet and nominal	2 45@2
Onions,	do	unchanged	1 25@1
Turnips,	do	do	0 25@0
Cider,	₩ bbl.	more active	8 50@5
Butter, fresh roll,	₩ lb	active & advanced	0 23@0
firkin,	do	do	0 22@0
Venison,	do	none in market	0 08@0
Eggs	₩ doz.	in full supply & lower	0 15@0
Pork, best dressed,	₩ cwt	active and advanced	8 00@8
do	₩ bbl	do	20 00@21
Beef, best dressed	₩ cwt	advanced	3 50@4
Mutton, dressed	₩ lb.	advanced	0 07@0
do live	do	unchanged	0 05@0
Hides, green,	do	do	0 05@0
do dry,	do	do	0 15@0
do green calf	do	do	0 12@0
do dry do	do	do	0 25@0
Sheep Skins each		do	1 75@2
Wool fine grade	₩ lb	do	0 68@0
Canada coarse clean fleece		do	0 50@0
Chickens dressed per pair		do	0 33@0
do live	₩ pair	do	0 30@0
Hay	₩ ton new and old	advanced & steady	20 00@21
Cheese,	₩ lb	do	0 12@0
Corn Meal,	₩ cwt.	declined	2 00@2
Coarse middlings	₩ ton	unchanged	20 00@24
Salt,	₩ bbl.	do	2 15@2
Flour,	do	quiet and unchanged	6 50@7
do buck wheat	₩ cwt.	very dull & nominal	3 00@3
Lard,	₩ lb	unchanged	0 10@0

WOOD Advanced—Good Hickory, $5,00 *a* 5,50. Beech a Maple $4,50a5,00; mixed Wood Beech, Ash, &c., at $4,00a4 Green ranges from 20 to 30 cents lower than well-seasoned dry. Active and wanted.

NEW YORK MARKET.

Compiled for the Farmer from the latest New York advices to the date of going to Press.

WHEAT—Market is very dull and heavy, the inquiry being mainly confined to the urgent wants of shippers for completing export cargoes. Millers are timid purchasers, and disposed to hold off in anticipation of lower rates, and prefavor the buyer at the close, although they large stock on hand on the 1st of January has become materially reduced. The sales are only 46,700 bush. Chicago Spring at $1 56@$1 58; 12,000 do. Milwaukee Club at $1 58@$1 59; Amber do. $1 60@$1 61; Red Western at $1 65@$168, the inside rate inferior. White Long Island $1 85@$1 90; *Michigan* Amb $1 71@$1 75 –2@3c advance on best quality since January.

FLOUR—The market for Western and State Flour is active, and the low grades of Western are heavy. Trade Family brands are dull and irregular at $6 25@$6 70 for $6 95@$7 15 for the low grades of Western Extra; $6 for Shipping Ohio; $7 25@$7 40 for trade and family $7 50@$8 10 for St. Louis Extra. Canadian Flour is moderate demand, and prices are heavy at $6 75@$6 95 for low grades of Extra, and $7 00@$8 00 for trade and family Southern Flour is also very dull and heavy.

CORN—Is in reduced supply, and is held much higher a strong upward tendency, unchanged at $1 20@$1 22 for

yellow Jersey and Pensylvania, and $1 25 for old mixed Western in store, now held at $1 28 and upward, unchanged in price.

OATS—Are less abundant, and are firmer and in fair demand at 89@90c for Canadian; 89@60½c for State, inside rates for both kinds at the railway depot up town, and 90@93c for Western—unchanged.

PORK—The market continues quite active, and again firmer and closing buoyant; for forward delivery there is also increased activity; Prime Mess for February and March at $21; $20 12½@$20 .1 for old mess; $21 25@$21 62½ for mess; $22@$28 12½ for new mess; $16 12½ for old prime; $18 00@$18 17½ for new do.; $20 50 for city prime mess, and $20 65@$21 12½ for Western do, prices unchanged.

BEEF—In fair demand and firm, Plain Mess $12 50@$14 00; Extra Mess $14 25@$16 00; Prime Mess per tierce $25; India Mess per tierce $28@$33.

DRESSED HOGS—Are irregular; many offering are out of condition; we quote Western a 9¼@11c, and City at 11@11¼c, prices unchanged.

LARD—Continues firm, with a fair business doing; sales at 18¼c for old, and 18¼a18¾c for new, and choice lots at 12¾c.

BUTTER—Is in light stock, and is firm and in fair demand at 28a35c for extra fine State, 28a32c for good to prime do., 28 a30c for Western Reserve, and 24a27c for common to prime Western—prices unchanged.

CHEESE—Is scarce and firm, with a good inquiry at 14a16c for ordinary to choice State Dairies, 13a14c for Ohio do., and 16a17c for choice State Factory made.

BEANS—Per bushel, Medium $2 40a$2 75; Pea $2 60a$2 75; Marrowfat $2 89a$3 25; Kidney, choice $3 00a$3 25.

REMARKS.—Flour and Wheat is less active than last month, but not declined. Corn and Oats more scarce and bids fair to advance soon. Pork is active and slightly advanced. Beef is in good demand and firm. Lard, Butter and Cheese is scarce, and firm and active. The market has not materially changed since our January issue and good prices prevail.

ALBANY LIVE STOCK MARKET.

BEEVES.—Prices are better the advance being equal to ½c per lb live weight, and but for the fact that some 700 head of last week's receipts, which were held over here, enter into this week's supply—making the total sale upwards of 4000 this would have been a profitable market for the drovers. Even as it is they have done reasonably well, and we met none disposed to complain. There was less speculative feeling apparent than usual, some of the new York dealers having lost pretty heavily on their ventures last week. These are now buying very cautiously, while others are checked by the fact that Lent begins this week, when the sales of butchers diminish considerably. The average quality is somewhat better than it was, but still is not up to what it ought to be at this season.

FREIGHTS.—On Beeves, Sheep and Hogs, from Buffalo to New York, 50c. per 100 lbs. State Cattle, from Albany to New York, by railroad, $25 per car load. From Albany to Brighton, $30 per car on Western, and $45 per car on State Cattle.

The Cattle in the different yards are from the several States and Canada in the following numbers:

New York	288	Iowa	117
Illinois	1833	Canada	73
Michigan	612	Indiana	205
Ohio	500	Missouri	189
Kentucky	189		

Prices—	This week.	Last week.
Premium [@ 100 lbs.]	$1 00@—	—@—
Extra	6 30@6 70	6 15@6 45
First quality	5 35@5 80	5 20@5 60
Second quality	4 25@4 75	4 00@4 50
Third quality	3 00@3 50	2 75@3 25

SHEEP.—The large supply and the continuance of mild weather, checks sales to a considerable extent, and causes a decline of 30a50c per 100 lbs. Among the sales were the following:—

160 Michigan, averaging 96 lbs at 7c per lb.
120 Michigan, averaging 98 lbs at 7c per lb.
80 Michigan, averaging 100 lbs at 7c per lb.
271 Michigan, averaging 95 lbs at 7¼c per lb.
360 Ohio, averaging 94 lbs at 6¾c per lb.
140 New York, averaging 122 lbs at 7¼c per lb.

LIVE HOGS.—There is but little doing in live Hogs, the demand being quite limited and the supply comparatively small, Ordinary light corn fed, averaging about 140 lbs, sell for 6c per lb and prices range from that figure to 6¾a7c, according to weight and quality. As the supply of Dressed Hogs is being cleared away, Western dealers are looking for a more active trade and better prices.

DRESSED HOGS.—The week's sales have been about 6700 head which is somewhat in excess of the sales of the previous week in prices, however, there is no improvement to note. The sales of the State have been light and have included some lots in store, at prices ranging from $9a9 87, principally at $9a9 12; Eastern buyers have kept out of the market. Sales of Western have been of new and old receipts and ranged from $8 87a9, principally at $8 25a8 75; the demand for these has been for the New York Market, and some are going into bar- rel on owners' account. The weather during the week has been warm. The receipts are moderate, and the aggregate so far this year comparad with 1863, shows a falling off of over 10,000 head. The sales include 110 head of State at $9 25, and 600 head Western at $8 50a8 90, dividing on 175 lbs.—*Albany Evening Journal.*

CHICAGO.—*Beef Cattle.*—Prime to extra qualities, $4 94a5 50; medium to prime, $3 25a4 00; common medium, $2 50a3 00.

Live Hogs.—Prime to extra qualities, $6 00a7 00; medium to prime, $5 50a6 00; common to medium, $4 75a5 50.

A PARTNER WANTED—OF EITHER SEX!

I WILL take a partner on my farm, one to manage out door matters or in. This is a good chance for a man with a family; he can stock the Farm all or in part and work it on shares, 120 acres, half improved. It is also a good chance for a family of the gentler sex, who has a little means, and will manage in door matters. One within the prime of life; she will be taken for better, better, better, but don't send one for worse.

Address "PARTNER," put in another envelope, and addressed to BOND & SNYDER, Detroit, Mich.

Strawberry Plants.

ALL our plants were laid in, and carefully marked last season. Such plants are much more valuable than those produced in the ordinary way. Send for Catalogue enclosing stamp.

J. KNOX.

Box 155, PITTSBURGH, Pa.

Grape Vines.

THE demand for our vines is largely increasing every season. Parties wishing to purchase this spring would do well to order early, as the demand promises to exceed the supply. Send for Catalogue enclosing stamp. J. KNOX.

Box 155, PITTSBURGH, Penn.

SHEEP WASH TOBACCO.

JAQUES' PURE EXTRACT OF TOBACCO.

WILL NOT INJURE the most delicate animal.

Kills TICKS on Sheep.

Cures SCAB on Sheep.

Kills VERMIN on Animals and Birds.

Cures all SKIN DISEASES on Animals.

Kills BUGS on Roses, LICE on House Plants.

Kills CANKER WORM on Apple Trees.

Kills BED-BUGS and WATER-ROACHES,

Kills all VERMIN that infest Grape and Cranberry vines.

One Pound of this Extract will make TEN Gallons of Wash.

For sale by all Druggists, and at Country and Agricultural Stores.

Price 75 cents per pound. A liberal discount to the trade and large purchasers.

Orders promptly sent by express.

JAMES F. LEVIN,

Agent South Down Co., 23 Central Wharf,

BOSTON, Mass.

R. H. ALLEN & CO.'S Agricultural Warehouse,

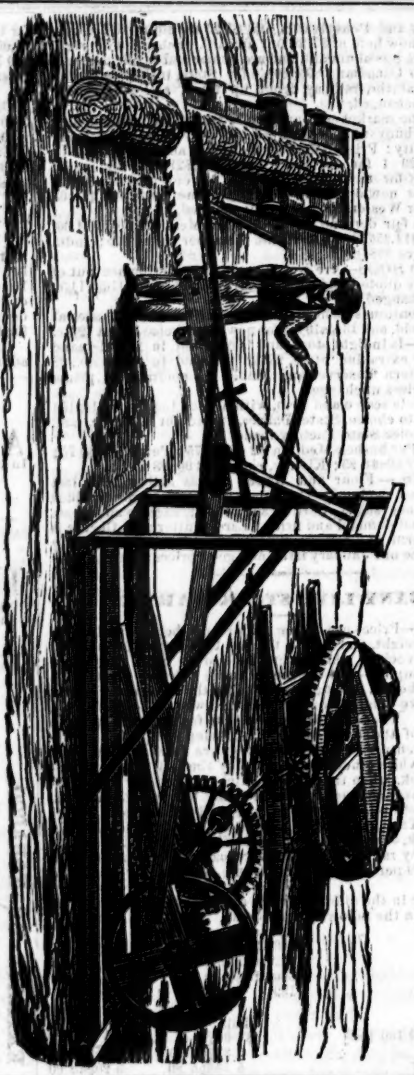
189—191 Water Street, NEW YORK CITY.

DUDLEY & STAFFORD, Druggists,

69 Beekman Street, NEW YORK CITY.

W. H. PIERCE, 107 Bank street, CLEVELAND, Ohio

A PROFITABLE COW.—James G. Rash, of Ann Arbor, sold to Geo. Fischer, butcher of this city, on Friday last, a fat cow, for which he received the nice little sum of $80,00. She was of the Durham breed, nine years old, and had realized for her owner about $200 worth in calves. This cow was a large milker, but her milk was not of the best quality. Her live weight was 1,400 pounds.—*News.*



BATTLE CREEK WOOD SAWING MACHINE.

Patented October 6, 1863—LATELY MUCH IMPROVED AND STRENGTHENED.

ALL the joints are now put together with Joint Bolts. We have geared up our HORSE POWER which takes much strain off the Tumbling Rod, thereby securing them from breaking hereafter, making it more useful *for general purposes*, such as driving Straw Cutters, Circular Saws, &c., because it has *more motion*.

It is detached from the Saw machine and is easily handled. We are now adding to our machine a *Self-Feeder*, for rolling the Log up itself—simply by pressing a lever, which will be much quicker and easier done. This improvement, together with our *Patent Saw Guide*, make ours

THE MOST COMPLETE SAWING MACHINE NOW IN USE.

It can be worked with two or four horses, and will saw from *twenty-five to thirty-five cords of Wood per day*. The Tumbling Rod runs close to the ground, and no wheels run below the frame. We furnish with every machine one length of track, roller truck, oil can and iron haul, and file every Saw ready to run.

PRICES.

Horse Power without sweep,	$46 00	Self-Feeder, additional,	$15 00
" " with	60 00	Circular Saw Mill 24 Inch Saw,	90 00
" " and Saw Machine,	110 00	Saw Machine without Gear, calculated for	60 00
One length of Track,	2 00	Geared Powers,	
		Truck with Four Wheels,	5 00
		" " Two	4 00
		Roller,	3 00

BURNHAM & CO., - - - FARMER'S WAREHOUSE,
BATTLE CREEK, MICHIGAN.

ROE'S
Patent Premium Cheese Vat,
AND IMPROVED HEATER, WITH
ROE'S PATENT CUT-OFF VALVES.

Patented Dec. 12, 1854; June 22, 1858; March 27, 1862; Jan. 22, 1863.

Is the best Cheese-making apparatus in the World.

Several thousands of them have been sold and their reputation is well known throughout the dairying sections of the country

The manufacturing of dairying appartus being our exclusive business, we are enabled to make a better study of the interest of the dairymen and make such improvements in dairying apparatus as the improved interests of dairying demand—and we believe we are not claiming too much in saying, that the improvement in the quality of Cheese, and the general interests of dairying within the last few years, is largely owing to the introduction of our Cheese Vat. This embraces everything wanted, up to the present time, for cooling and heating the milk; scalding the curd; regulating the heat; supplying the hot water; a measure to show the number of gallons of milk in the Vat, &c., &c., and everything made and finished in a superior manner, and is from $5 to $10 *cheaper than any other Vat.*

VATS FOR CHEESE FACTORIES

We are making very large Vats, with large heaters, cut-off, and all the improvements complete, for Cheese Factories of 160 to 1000 cows; also a superior style of carrying cans and all apparatus needed for Factory use.

We also manufacture and furnish *CHEESE PRESSES AND PRESS SCREWS*, for common or factory use.

Roe's Patent Expansion Cheese Hoop,

The best hoop in use. Curd Knives; Scale Boards for packing Cheese, &c., &c. Send for a Circular or address

ROE & BLAIR,
MADISON, Lake County, Ohio.

THE CULTIVATION of the CRANBERRY

IS much more easy and successful in the common dry soil of private gardens, Market Gardens, or in field culture, than in the usual clumsy way in bogs and meadows. The yield this season by my method of culture was over 400 bushels per acre. Explicit directions for cultivation, with price of CRANBERRY PLANTS, and all other *Useful and Ornamental Trees, Plants and Shrubs*, will be sent by mail. B. M. WATSON,
feb8m Old Colony Nurseries, PLYMOUTH, Mass.

☞ We have received *Godey's Lady Book*, *Arthurs Home Magazine*, *Frank Leslies* and the *Atlantic Monthly* for January and February, they are teeming with variety. For sale by Roys, Newsdealer.

KNOX'S
Fruit Farm and Nurseries.

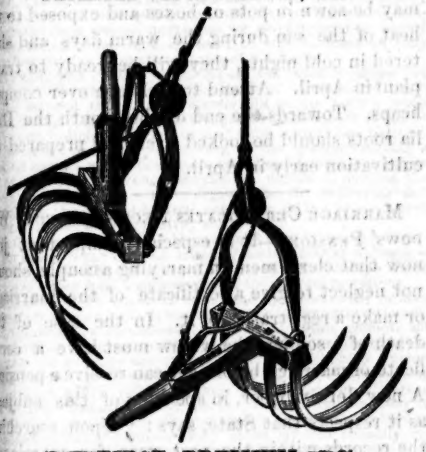
Our new catalogue of
SMALL FRUITS, FOR SPRING 1864.
Including
DR. JOHN A. WARDER'S

REPORT to the Cincinnati Horticultural Society, of a visit to our grounds, during the Strawberry and Grape seasons, giving descriptions of varieties, modes of culture, &c., is now ready and will be sent to all applicants enclosing stamp.

J. KNOX.
Box 155, PITTSBURGH, Penn.

PALMER'S
Excelsior Horse Pitchfork

PATENTED SEPTEMBER 30th, 1862.



FIRST PREMIUM
AT THE MICHIGAN STATE FAIR for 1863,
and at several other State Fairs.

About 7000 of these Forks have been sold the past season, which is more than have been sold of all other kinds, thus showing that Farmers generally prefer it to any other Fork in use.

It is now offered to the public improved in several respects. It has proved itself to be just the thing, and all we ask is a trial to convince the most skeptical that it is the best thing of the kind extant. It will will pitch off a load of Hay ordinarily in five or six minutes.

N. B.—The public are hereby cautioned not to make, sell or use any Horse Fork with "Tines passing below the bend of the Fork," as is fully secured by letters patent.

For County, and Town, Rights or Forks in the States of Ohio and Michigan, address

COE, ROOT & CO,
MADISON, Lake Co., Ohio.

Chester White Pigs!

THE SUBSCRIBER continues to breed and ship to order Pure bred *Chester White Pigs.* Address

SETH A. BUSHNELL,
HARTFORD, Trumbull Co., Ohio.

A NEW GRUB PULLER.

PATENTED BY JOSEPH FREY, FEB. 3, '63.

An improvement over all others now in use.

SIMPLE, CHEAP AND DURABLE,

and will pull all ordinary sized GRUBS with one team as fast as you can hitch them.

Territory and Machines for sale at the

FARMERS' WAREHOUSE,

October 25th, 1863. BATTLE CREEK, Michigan.

THE OAKLAND COUNTY
Farmers' Mutual Ins. Comp.

Of Oxford, Chartered June 19, 1862.

CAPITAL, - - - - $50,000.

SURPLUS, - - - $2588 67.

THIS Company, unlike any other Farmers' Insurance Company, is restricted by its Charter to the Insurance of private dwellings and the usual outbuildings connected with them and their contents.

Owners of this class of property, especially the farming community desirous of insuring, must at once see the great advantage afforded them by a Company organized on this plan; it being wholly exempt from the heavy losses sustained by companies that include in their risks manufactories, mills, taverns stores, and other like hazardous property.

The Directors offer the following summary of their plan of operations:

1st. Risks will be taken only on private dwelling houses and the usual out-buildings connected with them and their contents.

2nd. No more than two thirds the value of any building insured.

3d. Personal property insured at its full cash value.

4th. No application for a longer term accepted than three years.

C. K CARPENTER, | A. A. STANTON,
WM. H. FULLER, | LANSON PREDMORE,
NOAH TYLER, | L. G. TANNER,
F. W. FIFIELD, | *Directors.*

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WILLIAM H. FULLER, *Treasurer.* 1yfeb

C. RAOUX,

86 CEDAR ST., - - - - - NEW YORK CITY,

COMMISSION MERCHANT, AND

SOLE AGENT in the UNITED STATES,

For Messrs. JOHN STEWART & SONS, Nurserymen, Dundee, Scotland.
Mons. D. DAUVESSE, Nurseryman, Orleans, France.
I. De LANGE, Florist, Haarlem, Holland.

Goods purchased and sold on Commission. Custom house and forwarding business attend to with economy and despatch.

REFERENCES.

Edward Rowe, Esq., Pres't Grocers Bank, N. Y. City.
Messrs. Dodd & Co., Importers, New York City.
" Ed. Hart & Co. Merchants, " "
" Frost & Co., Genesee Valley Nurseries, Rochester, New York.
George R. Mumma, Esq., Dayton, Ohio.
Messrs. T. B. Yale & Co., Nurserymen, Rochester, N. Y.
S. B. Marshall, Esq., Prospect Hill Nur., Massillon, O.
J. E. Ilgenfritz, Nurseryman, Monroe, Michigan.
Messrs. Hoopes & Bro., Cherry Hill Nursery, Westchester, Penn.
T. J. Shallcross, Esq., Nurseryman, Locust Grove, Kent Co., Md. mayly

FRED. L. SEITZ & CO.,
BANKERS,

53 GRISWOLD STREET, - - - DETROIT,

PAY THE HIGHEST PRICE for Premium Funds, at all times. Buy Volunteer Relief Fund Orders and Wyandotte Script.

Sell Exchange on New York and all parts of Europe at lowest rates.

Land Warrants, State and United States Bonds bought and sold. *Swamp Land Certificates wanted.*

J. H. FARMER, M. D.,
DENTIST,

OFFICE ON MONROE AVENUE, corner Farmer Street, one block north of the City Hall. Residence, No. 27 Farmer street, between Monroe Avenue and Bates Street.

DETROIT, - - - - - - - MICHIGAN.

Teeth filled with Crystal Gold, Stanniel Foil or Cement.

Teeth inserted on Pivots or set in on Plate of any kind that may be desired, either in full or in partial Sets. All business in his line will be executed in a neat and satisfactory manner, and upon the most approved methods.

Premium taken at the State Fair of 1863

WORK FOR MARCH.

FARM WORK.

Finish the various jobs of winter, and prepare to commence spring labor in earnest. Examine all tools, and put them in good order. Paint and grease carts and wagons. Examine and replace harrow teeth. Repair hinges of sagging gates, and repair fences preparatory to putting in crops and turning out cattle. Procure and clean grass seed for spring seeding. Examine and obtain a good supply of the best seed of oats, barley and spring wheat. See that teams are kept in good working order, and if they can be frequently used half-a-day at a time, they will become better accustomed to the active labor of spring. Inspect thoroughly all the barns and out-buildings, and see to every part that it is in good order. Have tubs and kettles ready and manufacture maple sugar.

Sow clover seed early—it may be most accurately done on thin snow, rendering the seed and footsteps visible. Plant early potatoes for family use, as soon as the ground is thawed; if previously sprouted, in a warm place an inch or two in length, they will come up sooner. Clean out cellars thoroughly. Give especial attention to cows and calves, and breeding sheep.

GARDEN AND ORCHARD WORK.

This month affords considerable employment for an industrious market gardener. Manure may be drawn on the ground and distributed in heaps, ready to spread. Hot-beds and forcing-frames will require constant attention. Cover up in cold nights, and give additional air as the season progresses, to prevent the plants growing weak, taking care to regulate the heat as directed for different kinds of vegetables last month. Begin the kitchen garden as soon as the earth can be brought into good condition, and transplant hardy lettuce, dress artichoke beds, asparagus, rhubarb, and prepare to make new plantations of these vegetables. Plant broad beans, beet seed, plant cauliflower under hand glasses, sow cabbage seed, carrot, celery; plant cucumber, sow egg plant, lettuce and onion, parsley, parsnip, pepper, radish, rhubarb, salsify, spinach, and tomato seed; plant potatoes, peas, six weeks beans, and melon seed, beginning with the earliest and hardiest kinds. Begin to make hop plantations; plant esculents for seed; plant cabbage stumps from which will be produced early tender greens for the table.

In order to afford time for cultivating the soil as the weather moderates, the gardener should proceed as in February with pruning and cleaning fruit trees, small fruits and shrubs, cutting out all dead and superfluous branches, &c., at all opportunities; and if any *removal* is necessary, or fresh trees, shrubs, vines, &c., these things should be *procured* and planted this month if possible, as they strike roots early, and consequently obtain a healthy and strong growth the *first season.*

FLOWER GARDEN.

Towards the end of this month, the covering may be taken from hardy flowering plants, and the beds and borders dressed, at the same time clip edgings of box, &c.; clean, relay, or make new gravel walks, prune and transplant flowering shrubs and hardy herbaceous plants, and sow flower seeds of the hardy kinds, such as Amaranthus, Balsamines, Cockscombs, Convolvulus, Ice plants, Sensitive plants, and Cypress vine, these may be sown in pots or boxes and exposed to the heat of the sun during the warm days and sheltered in cold nights, they will be ready to transplant in April. Attend to and turn over compost heaps. Towards the end of this month the Dahlia roots should be looked over, and prepared for cultivation early in April.

MARRIAGE CERTIFICATES NECESSARY FOR WIDOWS' PENSIONS—It is especially important just now that clergymen, in marrying a couple, should not neglect to give a certificate of the marriage or make a registration of it. In the case of the death of a soldier, the widow must have a certificate of marriage before she can receive a pension. A new Jersey paper, in speaking of this subject as it respects that State, says: "Upon searching the records within the past year for marriages nearly half the unfortunate widows have been turned away with the remark: 'the clergyman performing the ceremony has neglected to comply with the law.'"

"*Feeding Fish Offal to Sheep,*" *continued from p. 379.*

MR. GOODALE, the Secretary, spoke of the value and importance of Mr. Dana's method of using fish offal; for the practice a three-fold benefit is obtained from the fish, viz: oil, food for sheep and manure. At Treat's Island, Eastport, Me. some 150 or 200 tons of fish guano is made annually, but it nearly all finds a market among the farmers of Connecticut. Our farmers have not learned its value, and do not appreciate its importance. In pressing the fish for the purpose of securing the oil, none of the nutritive qualities are lost,—the moisture and oil is all that is obtained; so it was can establish the fact—as there is little reason to doubt—that sheep will eat the refuse of fish, its value will become fully equal to oil cake or meal; indeed it will become more valuable than either. Sheep can be made to eat very poor hay, and also straw, while eating the fish, and thereby a saving to the hay crop will be effected. He believed it would make the mutton too high flavored.

TO FARMERS AND STOCK BREEDERS

ALL HAIL THE TRIUMPH THAT

Fickardt's Cattle Powder

HATH ACHIEVED!!

THOUSANDS ARE TESTIFYING TO ITS EFFICACY!

"The merciful Man is kind to his Beast."

AFTER years of study and experiment by the inventor to compound from *pure Vegetable materials* a Powder that *should* and *must* take the place of the thousand and one nostrums gotten up and palmed upon the public as *"certain remedies"* for the cure of all diseases which the brute creation are "heir to," he has produced the one heading this advertisement, and none *can be genuine* unless bearing our FAC SIMILE signature. The demand has been such that its sale has been chiefly confined to the State of Pennsylvania, but we have now consummated such arrangements that we are prepared to supply the numerous orders now on hand, as well as those we may hereafter receive from other States of the Union.

Knowing this Powder to possess all the curative properties here set forth, we deem a fulsome tirade of words unnecessary, feeling assured that its *own merits* will secure for it a ready sale. Being composed of pure vegetable ingredients, it can be safely and judiciously given to that noble animal the HORSE. Its effects are no *false pampering* of the system, creating a bloated carcass with a premature shedding of the hair; but on the other hand, it strengthens the the digestion, purifies the blood, regulates the urinary organs, thereby improving and protecting the whole *physical* condition of the animal even when in an apparently healthy state,

To the Agriculturist and Dairyman it is an invaluable remedy for their NEAT CATTLE laboring under HOOF diseases,—HOLLOW HORN, and other of the many complaints to which they are liable from a suppression of the natural secretions.

MILCH COWS are much benefitted by occasionally mixing with their slop or feed—it has a tendency to strengthen the animal, remove all obstructions from the milk tubes, promote all the secretions, and consequently adding much the health of the animal, and quantity and quality to the Milk, Cream & Butter.

HOGS, during the warm weather are constantly overheating themselves, which results in their getting Coughs, Ulcers of the LUNGS and other parts, which has a natural tendency to retard their growth. In all such cases a teaspoonful mixed in a bucket of feed and given every other day will speedily remove all difficulties, and the animal *will soon increase in both Health and FAT.*

TESTIMONIALS.

WASHINGTON, Jan. 7, 1863.

To William Ralston:

I have used your Cattle Powder, and would state that it possesses the qualities of toneing and renovating the stomach, removing in some morbific matter. I can recommend it for all horses in private use, where the system is not too much debilitated.

J. P. TURNER, *Veterinary Surgeon,*
For the United States Government,
Washington, D. C.

WASHINGTON. Oct. 16, 1862.

Wm. Ralston:

Dear Sir—Having tried the Cattle Powder, manufactured by you, I consider it a good article for the diseases of Horses, and a good a preparation as there is in the market.

HIRAM WRIGHT, *Asst. Veterinary Surgeon,*
For the United States Government.

WASHINGTON, Oct. 21st, 1863.

Wm. Ralston:

Dear Sir,—Having had your Horse and Cattle Powder in use for some time, I most cheerfully recommend it as a good article and well worthy of public notice.

M. JACKSON,
Superintendent of the Mule Corral.

Wm. Ralston:

We have tried the Horse Powders manufactured by you, in the Corral and Hospital stables to some extent. It it highly recommended to me by the Superintendent and Veterinary Surgeon in charge.

C. M. SNOW, *Gen'l Sup't.,*
Ass't Quartermaster's Office, cor. G. and 22d st.,
Washington D. C.

EPSOM, Baltimore Co., Md., May 20th, 1863.

The undersigned, for some time past, has had in use on his farm, "Fickhardt's Cattle Powder," and from the beneficial effects derived from it, takes pleasure in recommending the article to all Farmers, as a valuable preparation, to be given to Horses and Cattle. Some of my best work horses, that were or bad health, with little or no disposition for food, on their taking "Fickhardt's Cattle Powder," soon recovered their appetite, and in a short time became fat and in a short time became fat and in good condition.

HENRY B. CHEW.

PHILADELPHIA, May 15, 1855.

Wm. Ralston, Esq.:

Dear Sir—It is with pleasure that I certify to the invaluable properties of your Cattle Powder. I have been using it for nearly eight months. In last June I was traveling, my horse became very sick, so bad that I had to return home, and apply to a Farrier. It was nearly ten months before he was fit to use, he being in such a low condition. I happened to stop in at Mr W. White's, and saw your Cattle Powder. I made up my mind to try a package, and after using two of them, it was surprising to every one who saw the horse, to see how much he had improved in flesh and spirit. Those who had seen him before he became sick could scarcely believe him to be same. I also recommend the Powders as being a fine thing for the urine, and also to improve the coat, as it gives it a fine, silky appearance. My friends seeing the advantage of it, have commenced using it among their Cattle. No person should be without in their stables. I have seen it fully tested, and consider it one of the best articles in use.

Yours very respectfully,
GEORGE SNYDER.

We, the undersigned, have used your Powder, at the request of our friend, George Snyder, and find it very useful among our cattle.

PETER OTT,
JACOB OTT,
J. G. KEISS,
Lower Merion, Montgomery county, Penn.

PRICE 25 CENTS PER PACKAGE.

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☞ Principal Depot, No. 482 Broadway, New York.

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AND SUFFOLK PIGS.

THE subscriber has for sale several South Down Yearlings and Buck Lambs. The yearlings are by *Tetherly 3d Tetherly*, imported by Mr. Morris, of Mountfordham. The Buck Lambs are by *Young York*, grandsire *York*, also imported by Mr. Morris.

Also, several pair of Suffolk Pigs, from Stickney's Importation. The above stock is at the *Spring Brook Farm*, near the village of Farmington, Oakland county.

Address, **F. E. ELDRED,**
September, 1862. Detroit, Mich.

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A DELAWARE GRAPE VINE,

One of the newest, best, earliest, hardiest and most productive known in Grape Culture. This variety is one of the finest flavor for table use, and should be in every man's garden. We will send them by mail at the proper season. Try and secure one, as there are very few *true* Delaware Grapes in Michigan. Or *Two of the fine, large, hardy* **CONCORD GRAPE VINES.**

AIKEN'S KNITTING MACHINE, at $75,00!

Is also offered as a FIRST Premium for *the Largest List of not less* 75 *New Subscribers.* This most wonderful piece of mechanism will knit Silk, Cotton, Worsted or Woolen Scarfs, Clouds, or Stockings in the most even and beautiful style, (in any or all colors,) and superior to *any hand work.* It runs

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Thus it will be seen that our terms are extremely liberal and within the reach of all, as a club of thirty get the FARMER *for sixty-eight cents a year each!*

WILLIAM S. BOND, } *Publishers.*
GEORGE SNYDER, }

DETROIT, November, 1863.